



U.S. Department of the Interior
Bureau of Land Management

National Petroleum Reserve in Alaska

Integrated Activity Plan Record of Decision

April 2022

Prepared by:
U.S. Department of the Interior
Bureau of Land Management

In Cooperation with:
Bureau of Ocean Energy Management
National Park Service
Iñupiat Community of the Arctic Slope
North Slope Borough
State of Alaska
U.S. Fish and Wildlife Service

Mission

To sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

Cover Photo: Northeast National Petroleum Reserve in Alaska.
Photo by Bob Wick (BLM).

DOI-BLM-AK-R000-2019-0001-EIS

BLM/AK/PL-20/018+1610+F010

RECORD OF DECISION

I hereby adopt Alternative A of the National Petroleum Reserve in Alaska Integrated Activity Plan Environmental Impact Statement as described further and modified herein, and subject to the lease stipulations, required operating procedures, and lease notices developed by the Bureau of Land Management for that alternative, as reflected in this Record of Decision. My approval of this Decision constitutes the final decision of the Department of the Interior and, in accordance with the regulations at 43 CFR § 4.410(a)(3), is not subject to appeal under Departmental regulations at 43 CFR Part 4.

Department Approval:

Laura Daniel-Davis Digitally signed by Laura Daniel-Davis
Date: 2022.04.25 16:46:53 -04'00'

Signature

Date

Laura Daniel-Davis
Principal Deputy Assistant Secretary,
Land and Minerals Management

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Record of Decision

SUMMARY

This Record of Decision (ROD; Decision) documents the Secretary of the Interior's decision regarding the Bureau of Land Management's (BLM) future management of the National Petroleum Reserve-Alaska (NPR-A). This Decision, and the plan that it adopts, replaces the Decision issued by the Secretary of the Interior on December 31, 2020 (2020 IAP/ROD) which adopted Alternative E, including modifications and clarifications, as analyzed in the June 2020 NPR-A Integrated Activity Plan Final Environmental Impact Statement (2020 IAP/EIS).

This Decision is reached after an assessment by the Department of the Interior (Department) determined that the 2020 IAP/ROD is inconsistent with the policy set forth in Executive Order (EO) 13990. EO 13990 – *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*, issued on January 20, 2021, set forth new policy direction for various agency actions in support of a national “commitment to empower our workers and communities; promote and protect our public health and the environment; and conserve our national treasures and monuments, places that secure our national memory.” This led to the issuance of Secretary's Order (SO) 3398 on April 16, 2021, which, in relevant part, revoked SO 3352, finding it inconsistent with or to present obstacles to the policy set forth EO 13990. It further directed the Department to review and revise as necessary all policies and instructions that either implemented SO 3352 or that were otherwise inconsistent with the policy set forth in EO 13990. The Department accordingly identified the 2020 IAP/EIS – which had been prepared under direction provided in SO 3352 – as warranting review.

At the Department's direction, the BLM prepared a determination of NEPA adequacy (DNA) for the 2020 IAP/EIS, and conducted an assessment of the associated subsistence evaluation, and biological opinions to determine whether they remain adequate under the National Environmental Policy Act (NEPA), Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA), and Endangered Species Act (ESA) to support a new decision by the Department on the 2020 IAP. Through this evaluation effort, the BLM determined that the existing 2020 IAP/EIS and subsistence evaluation are adequate, and no additional analysis is necessary for the Department to select a different alternative from the range analyzed in the 2020 IAP/EIS.

On this basis, this Decision adopts Alternative A identified in the 2020 IAP/EIS, and includes clarifications and modifications outlined in **Appendix C**. The plan adopted by this Decision provides for management of the NPR-A consistent with the plan approved under the 2013 NPR-A IAP ROD which adopted Alternative B-2 as analyzed in the 2012 NPR-A Integrated Activity Plan Final Environmental Impact Statement (2012 IAP/EIS).

Under this Decision, approximately 11.8 million acres (52 percent) of the NPR-A's subsurface estate are available for oil and gas leasing. The remaining approximately 11 million acres (48 percent) of the NPR-A, including the majority of lands within Special Areas and much of the coastal area of the NPR-A along the Beaufort Sea, are closed to oil and gas leasing under this plan in order to protect and conserve important surface resources and uses in these areas. This Decision makes lands available for application for oil and gas infrastructure, including pipelines and other infrastructure necessary for owners of any offshore leases in the State or Federal waters of the Chukchi and Beaufort Seas to bring oil and gas across the NPR-A to

the Trans-Alaska Pipeline System (TAPS), while also prohibiting new infrastructure on lands containing habitat of special importance to nesting, breeding, and molting waterfowl as well as those with critical calving and insect relief areas for the Teshekpuk Lake and Western Arctic Caribou Herds.

This Decision establishes performance-based required operating procedures and lease stipulations, which apply to oil and gas leasing and development and, in some cases, non-oil and gas activities within the NPR-A (see **Appendix A**). The adopted required operating procedures and lease stipulations include a combination of protective measures from both Alternative A and Alternative E of the 2020 IAP/EIS. While almost all of the adopted protective measures are from Alternative A, a few protective measures are also selected from Alternative E for the purpose of providing greater protection to threatened and endangered species and their designated critical habitat than would be achievable under the protective measures approved under the 2013 IAP/ROD alone.

This Decision is informed by more than a decade of engagement with a wide variety of stakeholders through both the 2012 IAP/EIS and 2020 IAP/EIS processes as well as during the BLM's preparation of the DNA of the 2020 IAP/EIS. The North Slope Borough (NSB), the State of Alaska (State), the U.S. Fish and Wildlife Service (USFWS), and the Bureau of Ocean Energy Management (BOEM) all participated as cooperating agencies to the 2012 IAP/EIS process. These same agencies, along with the Inupiat Community of the Arctic Slope (ICAS) and the National Park Service (NPS) participated as cooperating agencies to the 2020 IAP/EIS process. The BLM also conducted public scoping meetings and meetings to take comments at the Draft EIS phase of each effort and held public hearings in each of the subsistence communities for which a finding of significant restriction to subsistence uses and needs was made under Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA). During both IAP/EIS processes and the evaluation of the 2020 IAP/EIS, the BLM initiated consultation with tribes on the North Slope of Alaska whose members might be impacted. This included tribal entities from Anaktuvuk Pass, Atkasuk, Nuiqsut, Point Lay, Utqiagvik, and Wainwright. The BLM also initiated consultation with Alaska Native corporations on the North Slope. More informally, during both IAP/EIS processes and the evaluation of the 2020 IAP/EIS, the BLM met with representatives of interested parties, including local and state governments, tribes, Alaska Native corporations, the NPR-A Working Group, and industry and environmental organizations.

Due to the dynamic nature of public land resources, it is necessary that plans such as this are maintained, amended, and, when necessary, revised. This plan will remain in place unless and until the agency determines that new circumstances require a different approach to management of the Reserve.

1 DECISION

The plan described in this ROD is hereby adopted for future management of the NPR-A. This Decision, and the plan that it adopts, replaces the Decision issued by the Secretary of the Interior on December 31, 2020 which adopted Alternative E, including modifications and clarifications, as analyzed in the 2020 IAP/EIS. The plan adopted by this Decision (Alternative A as analyzed in the 2020 IAP/EIS) provides for management of the NPR-A consistent with the plan approved under the 2013 NPR-A IAP ROD.

The plan includes decisions regarding:

- *Areas designated for oil and gas leasing, for pipelines and other infrastructure, and for special protections:* These land allocations include making areas available or unavailable for oil and gas leasing, identifying areas in which nearly all new infrastructure would be prohibited or in which

applications for pipelines and other infrastructure would be consistent with the plan, adjusting Special Area boundaries, and retaining the longstanding management of twelve rivers or river segments to protect their free flow, water quality, and outstandingly remarkable values.

- *Stipulations and required operating procedures (ROPs)*: The stipulations and ROPs will regulate permitted activities (stipulations attach to oil and gas leases and apply only to oil and gas leaseholder activities) in NPR-A to meet resource and use objectives and thereby mitigate impacts of those activities.

1.1 STATUTORY BACKGROUND

The BLM undertakes this plan in accordance with its responsibilities to manage the NPR-A under the authority and direction of the Naval Petroleum Reserves Production Act (NPRPA) and Federal Land Policy and Management Act of 1976 (FLPMA). The 2020 IAP/EIS addresses these responsibilities through a National Environmental Policy Act (NEPA) required environmental impact statement (EIS). The BLM's subsequent DNA of the 2020 IAP/EIS affirms that the existing 2020 IAP/EIS remains adequate, and no additional analysis is necessary for the Department to select a different plan from the range of alternatives analyzed in the 2020 IAP/EIS.

Under the NPRPA, the Secretary is required to conduct oil and gas leasing and development in the NPR-A (42 United States Code [USC] 6506a). The Department of the Interior and Related Agencies' Fiscal Year 1981 Appropriations Act specifically directs the Secretary to undertake "an expeditious program of competitive leasing of oil and gas" in the Petroleum Reserve. The NPRPA provides that the Secretary "shall assume all responsibilities" for "any activities related to the protection of environmental, fish and wildlife, and historical or scenic values" (42 USC 6503(b)) and authorizes the Secretary to "promulgate such rules and regulations as he deems necessary and appropriate for the protection of such values within the Reserve." The NPRPA's implementing regulations are found at 43 Code of Federal Regulations (CFR) Part 2360.

The Department of the Interior and Related Agencies' Fiscal Year 1981 Appropriations Act exempted the NPR-A from section 202 of the FLPMA. Section 202 (43 USC 1712) requires the preparation of land use plans (called resource management plans, in regulations—43 CFR Part 1600—adopted by the BLM). Because of the exemption from FLPMA section 202 and that the NPRPA is a dominant-use statute, the IAP is not developed as a resource management plan and does not consider sustained yield and multiple use. While the IAP analyzes a range of possible future BLM management practices for NPR-A in a manner similar to that done in a resource management plan, it is conducted consistent with NEPA regulations—40 CFR Parts 1500–1508¹—rather than FLPMA regulations. And, consistent with the NPRPA, the 2020 IAP/EIS addresses a narrower range of management than a resource management plan (e.g., it makes no decisions on opening lands to hard rock or coal mining).

Under the FLPMA, the Secretary has broad authority to regulate the use, occupancy, and development of public lands and to take whatever action is required to prevent unnecessary or undue degradation of the public lands (43 USC 1732). Each of the alternatives described in Chapter 2 of the 2020 IAP/EIS, consistent with

¹ Unless otherwise noted, references to the CEQ regulations throughout this Record of Decision and within the underlying EIS are to the regulations in effect prior to September 14, 2020. The revised CEQ regulations effective September 14, 2020 are not referred to in this Record of Decision or in the underlying EIS because the NEPA process associated with the proposed action began prior to this date. See 40 CFR 1506.13 (2020).

the NPRPA and the mandates of 40 CFR 1502.14, presents a different approach to such regulation of the public lands and presents different approaches to prevent unnecessary and undue degradation.

1.2 AREAS DESIGNATED FOR OIL AND GAS LEASING, PIPELINES AND OTHER INFRASTRUCTURE

Under this Decision, approximately 11.8 million acres (52 percent) of the approximately 22.8 million acres subsurface estate managed by the BLM in the NPR-A are available for oil and gas leasing (**Appendix B, Map 1**). The remaining approximately 11 million acres (48 percent) of the NPR-A are closed to oil and gas leasing under this plan in order to protect and conserve important surface resources and uses in these areas. Areas closed to oil and gas leasing include areas critical to sensitive bird populations and the Teshekpuk Lake and Western Arctic Caribou Herds, as well as some of the Beaufort Sea waters in and near Dease Inlet and Utqiagvik.

Under this Decision, new infrastructure is allowable on approximately 10.8 million acres of the NPR-A (**Appendix B, Map 3**). Limited new infrastructure, including essential pipeline and road crossings and essential coastal infrastructure, is allowable on approximately 3.3 million acres. The construction of new infrastructure is not allowable on 8.3 million acres of the NPR-A. Areas where new infrastructure is prohibited include the majority of the Utukok River Uplands Special Area, which provides habitat critical for calving and the summer movement of the Western Arctic Caribou Herd, and a sizeable area around Teshekpuk Lake which is of critical importance for nesting, breeding, and molting waterfowl and the Teshekpuk Caribou Herd. Infrastructure prohibitions in the Reserve do not apply in the following cases:

- Subsistence structures (camps and cabins)
- Single season snow and ice infrastructure, including those designed for use in successive winters or over-summering ice pads for exploration purposes
- Exploratory wells that are drilled in a single season
- Infrastructure in support of science and public safety. For example, small research facilities and unoccupied navigation aids could be permitted following evaluation of project proposals.
- Construction, renovation, or replacement of facilities on existing gravel pads at previously disturbed sites. New infrastructure at such sites may be permitted if the facilities will promote safety and environmental protection.

Lands in which new infrastructure is allowed are available for application for permits for such infrastructure, including infrastructure in support of offshore development in State and Federal waters. Decisions on the placement of new infrastructure will be made following a rigorous, multi-agency NEPA review, which will benefit from expertise from a wide range of specialists, such as biologists; subsistence, cultural, and paleontological specialists; soils and water scientists; geologists; engineering subject matter experts; economists; project estimators; and respected traditional knowledge holders to provide sound consideration of project routes and requirements.

1.3 AREAS DESIGNATED FOR SPECIAL PROTECTIONS

The NPRPA authorized the Secretary of the Interior to identify areas in the NPR-A “containing any significant subsistence, recreational, fish and wildlife, historical, or scenic value.” Any exploration in these areas shall be conducted in a manner which will “assure the maximum protection of such surface values to the extent consistent with the requirements of the Act for exploration of the reserve” [42 USC 6504(a)].

Special areas under this plan are the Teshekpuk Lake Special Area, Utukok River Uplands Special Area, Kasegaluk Lagoon Special Area, Peard Bay Special Area, and Colville River Special Area (**Appendix B, Map 5**).

This Decision reinstates the Colville River Special Area, as approved in the 2013 IAP/ROD. The Colville River Special Area is to be managed in accordance with the Colville River Special Area Management Plan (July 2008), as amended by the 2013 IAP/ROD. Under this decision, the boundaries of the Teshekpuk Lake and Utukok River Uplands Special Areas are reverted to those approved under the 2013 IAP/ROD. These boundaries generally encompass prime calving and insect-relief habitat and waterbird and shorebird breeding, molting, staging, and migration habitat within the NPR-A.

The adopted plan commits the BLM to protect the free flow, water quality, and outstandingly remarkable values of the rivers and river segments determined to be suitable for designation as Wild and Scenic rivers. This Decision does not recommend these rivers for Wild and Scenic River designation, but by committing the BLM to protect the rivers, it preserves Congress's option to pursue Wild and Scenic River designation in the future. Nothing in this Decision's commitment to protect these rivers, however, would block essential pipeline and other essential infrastructure crossings or make such crossings impracticable or non-economic.

Table 1
Rivers Eligible for Wild and Scenic River Status in the NPR-A Planning Area

River Name	Extents	Miles in the Planning Area	Outstandingly Remarkable Values
Awuna River	Headwaters to Colville	203	wildlife, scenic, cultural, geologic, subsistence, and recreational
Carbon Creek	Headwaters to Utukok	54	recreational, wildlife, scenic, cultural, and subsistence
Colville River	From headwaters (Storm Creek) downstream in all portions in which the river and both banks are in the NPR-A	174	wildlife, scenic, cultural, geologic, and subsistence
Driftwood Creek	Headwaters to Utukok	36	wildlife, scenic, cultural, geologic, and subsistence
Etivluk River	From confluence with Nigu to Colville	81	recreational, wildlife, scenic, and cultural
Ipnarik River	Headwaters to Colville	83	wildlife and scenic
Kiligwa River	Headwaters to Colville	51	wildlife, scenic, cultural, geologic, and subsistence
Kokolik River	Southern NPR-A boundary to northern boundary	73	recreational, wildlife, geologic, cultural, and subsistence

River Name	Extents	Miles in the Planning Area	Outstandingly Remarkable Values
Kuna River	Headwaters to Colville	63	wildlife and scenic
Nigu River	From NPR-A southern boundary to confluence with Etivluk River	40	recreational, wildlife, scenic, and cultural
Nuka River	Headwaters to Colville	55	wildlife and scenic
Utukok River	Headwaters at confluence of Tupik and Kogruk creeks to NPR-A southern boundary approximately 198 miles	222	recreational, wildlife, scenic, subsistence, and cultural

Source: BLM 2012, Section 3.4.7

Finally, the plan adopts decisions regarding visual resource management and off-highway vehicle use designations. In brief, these measures are:

- Visual Resource Management: manage areas in which new non-subsistence infrastructure is prohibited as VRM II, approximately 6 million acres near certain rivers and waterbodies as VRM III (see Table 2-2 in the 2012 IAP/EIS for details), and the remaining approximately 8.4 million acres as VRM IV (see **Appendix B, Map 6**).
- Off-highway vehicle use: year-round use of OHVs to support subsistence activities is allowed, casual or non-subsistence travel is limited to vehicles with a gross vehicle weight rating of 2,000 pounds or less and to times when frost and snow cover is sufficient to protect the tundra, and inter-village travel is limited to times when frost and snow cover sufficient to protect the tundra (see Table 2-2 in the 2012 IAP/EIS for details).

1.4 STIPULATIONS AND REQUIRED OPERATING PROCEDURES

This Decision adopts the leasing stipulations and required operating procedures listed in **Appendix A. Maps 2 and 4** in **Appendix B** illustrate the geographic scope of some of these stipulations.

The adopted lease stipulations and required operating procedures include a combination of protective measures from both Alternative A and Alternative E as analyzed in the 2020 IAP/EIS. This suite of protective measures is informed by coordination with the USFWS during the 2020 IAP/EIS effort and associated ESA section 7 consultation. The protective measures analyzed under Alternative E which are adopted in this Decision (ROPs C-1, E-3, E-10, E-11, and E-20 as renumbered in **Appendix A**) reflect new scientific information and improved management practices for ESA-listed species and designated critical habitat that did not exist at the time that the 2013 IAP/ROD was approved.

This Decision also makes minor modifications and clarifications in the language of stipulations and required operating procedures listed in Alternative A in the Final IAP/EIS. These modifications and clarifications are described in **Appendix C**.

2 ALTERNATIVES

The 2020 IAP/EIS analyzed five alternatives in detail. This range of alternatives was developed to ensure that a wide spectrum of management options which address public suggestions and agency concerns for protecting resources and uses were considered.

2.1 ALTERNATIVE A

Alternative A would re-implement management originally approved in the 2013 IAP/ROD. Under Alternative A, approximately 52 percent (11.8 million acres) of the NPR-A's subsurface estate would be open to oil and gas leasing, including some lands closest to existing leases centered on the Greater Mooses Tooth and Bear Tooth units and Umiat. Lands near Teshekpuk Lake would continue to be unavailable for oil and gas leasing.

While providing these opportunities for oil and gas development, Alternative A would provide important protections for surface resources and other uses. Approximately 11 million acres would be closed to oil and gas leasing under Alternative A, comprising most lands in special areas and some Beaufort Sea waters in and near Dease Inlet and Utqiagvik. This would preclude oil and gas development in areas important for sensitive bird populations and the Teshekpuk and Western Arctic Caribou Herds. New infrastructure would be prohibited on approximately 8.3 million acres.

Special areas under Alternative A are the Teshekpuk Lake Special Area, Colville River Special Area, Utukok River Uplands Special Area, Kasegaluk Lagoon Special Area, and Peard Bay Special Area. Alternative A would not recommend any rivers for addition to the National Wild and Scenic River System; however, the BLM would manage the existing 12 suitable rivers to protect their free flow, water quality, and outstandingly remarkable values.

2.2 ALTERNATIVE B

Alternative B is similar to Alternative A, but it would increase the land set aside for conservation, while allowing access for operators to transport oil from State offshore leases to the Trans-Alaska Pipeline System. The area open to leasing would decrease compared with Alternative A to approximately 10.9 million acres (48 percent of the NPR-A's subsurface estate) to account for new resource-related data. Compared to Alternative A, the area closed to new infrastructure would increase, to approximately 11.1 million acres, to prevent additional development in Teshekpuk Caribou Herd habitat and molting goose habitat.

In the Teshekpuk Lake Special Area, there would be two north-south pipeline corridors provided to allow for linear rights-of-way to transport oil and gas from offshore leases through areas otherwise closed to new infrastructure. This alternative would make no decision regarding the exact location of such corridors, and potential corridors shown on maps in the 2020 IAP/EIS are for representational purposes only. Specific corridor locations would be developed in subsequent NEPA analyses, pursuant to Stipulations K-6 and K-8, and ROP E-23, when a pipeline project is proposed. Alternative B would recommend the 12 suitable rivers for designation in the National Wild and Scenic River System.

2.3 ALTERNATIVE C

Alternative C would increase the total number of acres open to leasing, compared with Alternative A, to approximately 17.3 million acres (76 percent of the NPR-A's subsurface estate). This would be accomplished by reducing the areas closed to leasing in the Teshekpuk Lake Special Area and in the Utukok River Uplands Special Area. Compared to Alternative A, the area closed to new infrastructure would decrease, to approximately 4.9 million acres, primarily by reducing the areas closed in the Utukok River Uplands Special Area. Both the Teshekpuk Lake Special Area and the Utukok River Uplands Special Area would retain a core area that would be unavailable for leasing and closed to new infrastructure.

Caribou calving habitat and other important biological resources would be protected from oil and gas development through No Surface Occupancy (NSO) stipulations and Timing Limitations (TLs). One north-south pipeline corridor east of Teshekpuk Lake would be provided in the Teshekpuk Lake Special Area to allow for linear rights-of-way to transport oil and gas from offshore leases through areas otherwise closed to new infrastructure. This alternative would make no decision regarding the exact location of such corridor, and a potential corridor shown on maps in the 2020 IAP/EIS is for representational purposes only. The specific corridor location would be developed in subsequent NEPA analyses, pursuant to Stipulations K-6 and K-8, and ROP E-23, when a pipeline project is proposed.

The southern and eastern portions of the Utukok River Uplands Special Area would be available for new infrastructure. Alternative C would not recommend any rivers for addition to the National Wild and Scenic River System; however, the BLM would manage the existing 12 suitable rivers to protect their free flow, water quality, and outstandingly remarkable values.

2.4 ALTERNATIVE D

Alternative D, together with Alternative E (same), would make the most land open to leasing (approximately 18.6 million acres, or 82 percent of the NPR-A's subsurface estate). Compared to Alternative A, the area closed to new infrastructure would decrease, to approximately 4.4 million acres. The management of the Utukok River Uplands, Kasegaluk Lagoon, and Peard Bay Special Areas would be the same as that under Alternative C. All of the Teshekpuk Lake Special Area would be available for leasing, with impacts on caribou calving habitat and important bird habitat mitigated through NSO stipulations and TLs.

No pre-defined, dedicated pipeline corridors would be needed in the Teshekpuk Lake Special Area under Alternative D because more areas would be open to new infrastructure, including where pipelines may be needed to transport oil and gas from offshore leases. As with Alternative C, Alternative D would not recommend any rivers for addition to the National Wild and Scenic River System, and the BLM would manage the existing 12 suitable rivers to protect their free flow, water quality, and outstandingly remarkable values.

2.5 ALTERNATIVE E

Alternative E would continue management under the 2020 IAP/ROD. Under this alternative, together with Alternative D (same), approximately 18.6 million acres, or 82 percent of the NPR-A's subsurface estate would be open to oil and gas leasing. This alternative focuses to a greater extent on allowing for the possibility of development while managing its potential effects. The area closed to new infrastructure would decrease the most compared to Alternative A, to approximately 4.3 million acres. The management of Kasegaluk Lagoon Special Area and Peard Bay Special Area would be the same as that under Alternatives C and D. The Teshekpuk Lake Special Area would be available for leasing, with potential impacts on caribou calving habitat and important bird habitat mitigated through NSO stipulations and TLs. The Utukok River Uplands Special Area would have a core area that is unavailable for leasing and new infrastructure, a corridor where leasing and infrastructure is allowed subject to a TL, and a caribou migration corridor along the southern boundary that is available for leasing subject to NSO stipulations and allows essential road and pipeline crossings.

As with Alternative D, no pre-defined, dedicated pipeline corridors would be needed in the Teshekpuk Lake Special Area under Alternative E because more areas would be open to new infrastructure, including where pipelines may be needed to transport oil and gas from offshore leases. As with Alternatives C and D, Alternative E would not recommend any rivers for addition to the National Wild and Scenic River System,

and the BLM would manage the existing 12 suitable rivers to protect their free flow, water quality, and outstandingly remarkable values.

2.6 ENVIRONMENTALLY PREFERRED ALTERNATIVE

Alternative B is the environmentally preferred alternative. This is primarily because Alternative B would make the least amount of lands available for oil and gas leasing (and subsequently for potential exploration and development) and the most area closed to new infrastructure and to additional development in Teshekpuk Caribou Herd habitat and molting goose habitat. The restricted areas available for leasing and infrastructure would reduce the alternative's potential for impacts from oil and gas exploration and development in NPR-A. Though many stipulations and required operating procedures are common among the alternatives, where there are differences (e.g., wider river setbacks), Alternative B generally has the most protective measures.

In addition, Alternative B recommends Congressional designation of twelve suitable rivers or for addition to the National Wild and Scenic Rivers System. Consequently, Wild and Scenic designation under Alternative B would provide permanent protection to them and part of their riparian areas.

3 MANAGEMENT CONSIDERATIONS

The plan adopted by this Decision continues to provide for the exploration and development of oil and gas in NPR-A while protecting important surface values and uses. This plan makes 11.8 million acres within the NPR-A available for oil and gas leasing and makes lands available for applications for pipelines and other infrastructure to support oil and gas development within the NPR-A as well as neighboring offshore and onshore areas. At the same time, this plan provides important protections for habitat areas critical to numerous subsistence species as well as coastal waters and river routes critical for North Slope residents to access hunting, fishing, berry picking, and trapping grounds.

The impact analysis undertaken for the NPR-A plan and presented in the 2020 IAP/EIS (with an October 6, 2020 errata) is suitably specific for broad-scale management decisions made in this ROD. The BLM reaffirmed this in the DNA of the 2020 IAP/EIS, which determined that the existing 2020 IAP/EIS remains adequate, and no additional analysis is necessary for the Department to select a different plan from the range of alternatives analyzed in the 2020 IAP/EIS. Additional site-specific analysis will occur when BLM receives an application to approve an action on the ground. This will be done through subsequent NEPA reviews and analysis, which will be conducted before BLM issues permits or approvals for any ground disturbing activity.

3.1 BLM'S RESPONSIBILITIES AND LEGAL AUTHORITIES

Under the NPRPA, the Secretary of the Interior is required to conduct oil and gas leasing and development in the NPR-A (42 USC 6506a). The Department of the Interior and Related Agencies' Fiscal Year (FY) 1981 Appropriations Act specifically directs the Secretary to undertake "an expeditious program of competitive leasing of oil and gas" in the NPR-A. Under the plan adopted in this Decision, approximately 52 percent of the NPR-A is made available for oil and gas leasing, including lands near existing lease tracts and discoveries in the eastern part of the NPR-A. By making these lands available for leasing, the decision adopted in this ROD fulfills BLM's responsibility under the NPRPA to manage NPR-A to conduct oil and gas leasing and development.

Two federal laws mandate protection for surface values in the NPR-A. Under the Federal Land Policy and Management Act (FLPMA), the Secretary has broad authority to regulate the use, occupancy, and development of public lands and to take whatever action is required to prevent unnecessary or undue degradation of the public lands (43 USC 1732). The NPRPA provides that the Secretary "shall assume all responsibilities" for "any activities related to the protection of environmental, fish and wildlife, and historical

or scenic values” (42 USC 6503(b)) and authorizes the Secretary to “promulgate such rules and regulations as he deems necessary and appropriate for the protection of such values within the reserve.” In addition, the NPRPA, as amended, authorizes the Secretary to designate lands “containing any significant subsistence, recreational, fish and wildlife, or historical or scenic value” and requires that in these lands activities “shall be conducted in a manner which will assure the maximum protection of such surface values to the extent consistent with the requirements of this Act” for exploration and production activities (P.L. 96-514, 42 USC 6504(a)).

This Decision realizes these objectives by adopting a plan that allows for oil and gas development in the NPR-A, while at the same time providing important protections for surface values and resources. Under this plan, approximately 48 percent of the NPR-A is unavailable for oil and gas leasing. Areas unavailable for leasing encompass critical wildlife habitat and other important surface values and include the majority of lands within Special Areas. In some of the lands in which leasing would not be allowed, the plan also prohibits nearly all new permanent infrastructure. For those lands on which leasing and development can occur, this plan provides a suite of lease stipulations and required operating procedures to minimize impacts to surface values and uses (**Appendix A**).

The NPRPA, as amended, guided the process and constrains the decision scope of this plan. The Department of the Interior and Related Agencies’ Fiscal Year 1981 Appropriations Act exempted the Petroleum Reserve from section 202 of FLPMA (43 USC 1712), which requires the preparation of land use plans (called resource management plans, in regulations—43 CFR Part 1600—adopted by the BLM). Because of the exemption from FLPMA section 202, the plan was not developed as a resource management plan. While the IAP analyzed a range of possible future BLM management practices for the NPR-A in a manner similar to that done in a resource management plan, it was developed consistent with NEPA regulations—40 CFR Parts 1500-1508—rather than FLPMA regulations.

Consistent with the NPRPA, the NPR-A IAP addresses a narrower range of management than a resource management plan. The NPRPA, as amended, and its implementing regulations, require oil and gas leasing in the NPR-A and the protection of surface values to the extent consistent with exploration and development of oil and gas. Consistent with this purpose, the NPRPA also withdraws the NPR-A from all other forms of entry and disposition under the public land laws, including the mining laws. Therefore, this ROD makes no decision on opening lands to hard rock or coal mining. The 1981 Appropriations Act also exempted the NPR-A from FLPMA section 603 (43 USC 1782), which requires the completion of wilderness reviews and describes the procedures for managing any lands recommended to Congress for wilderness designation, pending Congressional action. Section 1320 of the Alaska National Interest Lands Conservation Act (ANILCA; 43 USC 1784), however, grants the Secretary discretionary authority to “identify areas in Alaska which he determines are suitable as wilderness” and states that the Secretary “may, from time to time, make recommendations to the Congress for inclusion of any such areas in the National Wilderness Preservation System.” While section 603 of FLPMA requires that, pending congressional action, the BLM shall manage lands recommended for designation “so as not to impair the suitability of such areas for preservation as wilderness,” section 1320 of ANILCA states that “in the absence of congressional action,” the BLM shall manage the lands recommended for wilderness designation “in accordance with the applicable land use plans and applicable provisions of law.”

3.2 DECISION RATIONALE

The plan adopted in this Decision reflects careful consideration of the environmental values and of the oil and gas potential of the NPR-A. An overriding consideration in this Decision was the need to meet the directive

of the Department, as established under Secretary's Order 3398 (SO 3398), to bring the management of the NPR-A in line with the policy set forth under Executive Order 13990 (EO 13990).

Issued on January 20, 2021, EO 13990 – *Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis* declares as the policy of the Administration “to listen to the science; to improve public health and protect our environment; to ensure access to clean air and water; to limit exposure to dangerous chemicals and pesticides; to hold polluters accountable, including those who disproportionately harm communities of color and low-income communities; to reduce greenhouse gas emissions; to bolster resilience to the impacts of climate change; to restore and expand our national treasures and monuments; and to prioritize both environmental justice and the creation of the well-paying union jobs necessary to deliver on these goals.” Section 2 of the EO directs the heads of all agencies to review all agency actions promulgated, issued, or adopted between January 20, 2017, and January 20, 2021, that are or may be inconsistent with, or present obstacles to, the policy set forth in Section 1, and as appropriate and consistent with applicable law, to consider whether to take any additional agency actions to fully enforce the policy.

Consistent with this direction, Secretary of the Interior Haaland issued SO 3398 on April 16, 2021, which, in relevant part, revoked Secretary's Order 3352 (SO 3352), finding it inconsistent with or to present obstacles to the policy set forth in EO 13990, and directed the Department to review and revise as necessary all policies and instructions that implemented SO 3352 or that are otherwise inconsistent with the policy set forth in EO 13990. The Department accordingly identified the 2020 IAP, which was prepared consistent with direction provided under SO 3352, as warranting review.

The plan adopted by this Decision better serves the policy set forth in EO 13990 than that adopted by the 2020 IAP/ROD by providing greater protections to environmental values and subsistence uses in the NPR-A while still allowing for oil and gas exploration and development consistent with BLM's management responsibilities under the NPRPA.

Compared to the plan adopted under the 2020 IAP/ROD, this plan makes available fewer total acres of land to new oil and gas leasing and new infrastructure. Under the plan adopted in this decision, approximately 11 million acres of the NPR-A are closed to fluid mineral leasing. New infrastructure is prohibited on approximately 8.3 million acres. Areas where these prohibitions are of particular importance are the environmentally sensitive lands around Teshekpuk Lake, those in the southwestern NPR-A, and coastal areas within the NPR-A. These lands contain habitat critical to numerous subsistence species which are relied upon by northwest Alaska communities both within and outside of the NPR-A. This Decision recognizes the importance of not only protecting these species and their habitat but also access to these resources and traditional hunting areas in support of the rural communities that rely on these subsistence resources for their physical, traditional, and social existence.

Teshekpuk Lake and the lands surrounding it provide important nesting and breeding area for many species of waterbirds and shorebirds, as well as habitat essential to the Teshekpuk Caribou Herd (TCH), for calving, insect relief, and migration. These lands are also located within the area recognized as having high potential for oil discovery and development and therefore would be likely to be impacted if available to fluid mineral leasing and new infrastructure. Under the 2020 IAP/ROD, all lands around the Teshekpuk Lake are available to fluid mineral leasing, although subject to no surface occupancy or timing limitations. Under the plan adopted by this Decision, approximately 1.1 million acres around Teshekpuk Lake, including those most heavily used by calving caribou and molting geese, are closed to both fluid mineral leasing and new infrastructure.

At the opposite corner of the NPR-A, the majority of the area within the Utukok River Uplands Special Area is also closed to both fluid mineral leasing and new infrastructure under the plan adopted by this Decision. These lands are recognized as having a low potential for oil discovery and development but are of considerable importance to the Western Arctic Herd (WAH) of caribou for calving and summer movement. The WAH supports, in part, the subsistence needs of more than forty rural Alaskan communities across northwestern Alaska. Under the plan adopted by this Decision, all but the northern-most 18 miles of the Utukok River Uplands Special Area are closed to both fluid mineral leasing and new infrastructure.

Under the plan adopted by this Decision, the majority of the NPR-A's coastline is unavailable to new fluid mineral leasing. Areas unavailable to fluid mineral leasing include Kasegluk Lagoon, Peard Bay, Dease Inlet, Admiralty Bay, and Elson Lagoon. Those areas which remain available to fluid mineral leasing are subject to no surface occupancy provisions. In comparison, the plan under the 2020 IAP/ROD made unavailable to fluid mineral leasing only those coastal areas within Kaseguluk Lagoon and Peard Bay. The coastal areas protected by the allocations under the plan adopted by this Decision are important for numerous threatened and endangered species and their critical habitat including spectacled and Stellar's eiders, polar bears, Northern Sea Otter, Pacific walrus, and ringed and bearded seals. By its adoption of required operating procedures C-1, E-3, E-10, E-11, and E-20 (as renumbered in **Appendix A**), from Alternative E in the 2020 IAP/EIS, this Decision also provides a greater level of protections to these listed species and their designated critical habitat along the NPR-A's coastline than would be provided by adopting the protective measures approved under the 2013 IAP/ROD alone. These protective measures were informed by coordination with both the United States Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration – Fisheries (NOAA Fisheries) during the 2020 IAP/EIS process and reflect new scientific information and improved management practices for protected species and their designated critical habitat, especially for polar bears, that did not exist at the time that the 2013 IAP/ROD was issued.

By reducing the total amount of land in the NPR-A that is available to fluid mineral leasing and new infrastructure, the plan adopted by this Decision will likely result in less leasing over time. Depending upon the degree of development that may have occurred with increased leasing, this could result in reduced greenhouse gas (GHG) emissions compared to the plan under the 2020 IAP/ROD. While the adoption of this plan itself does not directly generate GHG emissions, such emissions are a reasonably foreseeable consequence of making available lands within the NPR-A to oil and gas leasing and development. As such, adoption of this plan supports the administration and department's commitment to addressing climate change by reducing the amount of land within the NPR-A that is available to fluid mineral leasing.

3.3 MITIGATION MEASURES

This Decision includes restrictions on leasing and new infrastructure, stipulations and required operating procedures, designation of Special Areas and adjustments to their boundaries, and adoption of unique protective measures therein, and other measures to minimize impacts from permitted activities. Additional site-specific measures to mitigate impacts may be required during the permitting process for future projects. Those measures may respond to specific potential impacts of the proposal and may include mitigations consistent with 40 CFR 1508.20. The decision in this ROD includes numerous practicable means to avoid or minimize environmental harm consistent with the purpose and need of the action, including all types of potential impacts.

As stated previously, the protective measures adopted by this Decision include a combination of lease stipulations and required operating procedures from both Alternative A and Alternative E as analyzed in the 2020 IAP/EIS. This suite of protective measures is informed by coordination with the USFWS during the

2020 IAP/EIS effort and associated ESA section 7 consultation. The protective measures analyzed under Alternative E which are adopted under this Decision (ROPs C-1, E-3, E-10, E-11, and E-20 as renumbered in **Appendix A**) reflect new scientific information and improved management practices for ESA-listed species and designated critical habitat that did not exist at the time that the 2013 IAP/ROD was approved. Accordingly, this Decision also provides a greater level of protections to ESA-listed species and their designated critical habitat than would be provided by adopting the protective measures approved under the 2013 IAP/ROD alone.

As described in the ROPs and lease stipulations, this Decision requires certain baseline studies, oversight monitoring, and effectiveness monitoring for permitted activities.

Baseline studies: Studies or surveys prior to activities to better mitigate impacts associated with the activities.

Project proponents may be responsible for conducting or funding baseline studies, including fish, wildlife, and vegetation surveys or other data collection/compilation where applicable, to provide BLM decision-makers with sufficient information to make informed decisions on a project or series of projects. The type and scale of such studies or data collection/compilation will be determined by the BLM, based on the characteristics of the proposed project and location. The BLM will work with project proponents to coordinate any necessary surveys to ensure that consistent methods are used and that surveys are not duplicative of existing federal and state data or other publicly available data. Some such studies, data collection/compilation and surveys are described in Stipulations K-6, K-7, K-8, K-10, K-11, and ROPs A-7, B-2, C-1, C-2, E-3, E-5, E-7, E-9, and E-13.

Oversight monitoring: Monitoring to ensure compliance with applicable requirements.

The BLM will conduct oversight monitoring to ensure that project proponents' plans for activities and implementation of those plans conform to the relevant requirements. Oversight monitoring will often require such elements as review of planning documents; field visits prior to activities to ensure compliance with requirements at the on-the-ground preparation stage for construction, operational start-ups, and abandonment activities; presence in the field during activities to ensure compliance; and follow-up field visits to ensure that any required clean-up and abandonment activities are in compliance with requirements.

Effectiveness monitoring: Monitoring to evaluate the effectiveness of project designs and mitigation measures.

Certain ROPs and lease stipulations require project proponents to assess the effectiveness of required mitigations in protecting resources. Project proponents may be responsible for planning and implementing monitoring to assess the effectiveness of project designs and required mitigations in protecting resources.

Studies and monitoring undertaken to provide baseline data or to monitor effectiveness of mitigation measures, unless otherwise indicated in the ROP or lease stipulation, must meet the approval of the BLM Authorized Officer. When applicable, the data collection process and product shall be consistent with standards established by the BLM's Assessment, Inventory, and Monitoring program.

3.4 ENDANGERED SPECIES ACT CONSULTATION

Section 7(a)(2) of the Endangered Species Act (ESA) requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration-Fisheries (NOAA Fisheries), as appropriate, to ensure that their actions do not jeopardize the continued existence of species listed as threatened or endangered under the ESA or destroy or adversely modify their critical habitat.

For this plan, the BLM consulted with the USFWS on five species and their associated units of designated critical habitat that are protected under the provisions set forth in the ESA: short-tailed albatross (*Phoebastria albatrus*), spectacled eiders (*Somateria fisheri*), Steller's eider (*Polysticta stelleri*), polar bears (*Ursus maritimus*), and Northern sea otters (*Enhydra lutris kenyoni*), Southwest Alaska Distinct Population Segment (DPS). The short-tailed albatross is listed as Endangered; the remaining four species are listed as Threatened.

The BLM consulted with NOAA-Fisheries on the bowhead whale (*Balaena mysticetus*), blue whale (*Balaenoptera musculus*), fin whale (*Balaenoptera physalus*), humpback whale (*Megaptera novaeangliae*) Western North Pacific and Mexico DPS and their critical habitat, North Pacific right whale (*Eubalaena japonica*) and its critical habitat, sperm whale (*Physeter macrocephalus*), bearded seal (*Erignathus barbatus*) Beringia DPS, Arctic subspecies of ringed seal (*Phoca hispida hispida*), Steller sea lion (*Eumetopias jubatus*) Western DPS and its critical habitat.

The USFWS completed its Biological Opinion on March 9, 2022, and NOAA-Fisheries completed its Letter of Concurrence on March 4, 2022. In its Biological Opinion, the USFWS identified several project design criteria that lessees and permittees must adhere to when conducting permitted activities in the NPR-A. NOAA-Fisheries also identified additional mitigation measures to protect listed species in its Letter of Concurrence. The BLM will ensure that its lessees, permittees, and agents of its lessees and permittees adhere to all lease stipulations, required operating procedures, project design criteria and additional mitigation measures.

3.5 NATIONAL HISTORIC PRESERVATION ACT

In accordance with Section 106 of the National Historic Preservation Act, the BLM requested to consult with the Alaska State Historic Preservation Officer to determine how proposed activities could affect cultural resources listed on or eligible for listing on the National Register of Historic Places. The SHPO declined to formally consult with the BLM on the 2020 IAP/EIS and subsequent DNA for the 2020 IAP/EIS but did offer to provide technical review or assistance during the 2020 IAP/EIS process. The SHPO acknowledged that the 2020 IAP/EIS, as a land use plan, is an administrative action without the potential to affect historic properties since it does not authorize ground disturbing activities. The BLM will comply with Section 106 of the NHPA, including, as applicable, consultations with the SHPO, when individual projects are implemented in the future.

The BLM consulted with federally recognized tribal governments and Alaska Native corporations during preparation of the 2020 IAP/EIS to identify any culturally significant historic or traditional resources in the project area and to understand how the proposed action had the potential to affect these types of resources.

3.6 ANILCA SECTION 810 SUBSISTENCE EVALUATION

Section 810(a) of the Alaska National Interest Lands Conservation Act (ANILCA) requires that a subsistence evaluation be completed on the final plan for the NPR-A. ANILCA also requires that this evaluation include findings on three specific issues:

- 1) The effect of such use, occupancy, or disposition on subsistence uses and needs;
- 2) The availability of other lands for the purpose sought to be achieved; and
- 3) Other alternatives that reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes (16 U.S.C. 3120).

The following discussion summarizes the ANILCA Section 810 Evaluation for this Decision. The summary is based on the detailed ANILCA 810 analysis in Appendix E of the 2020 IAP/EIS for the No Action Alternative (Alternative A).

As part of the evaluation of the 2020 IAP/EIS directed by the Department in accordance with SO 3398 the BLM prepared an ANILCA Section 810 Compliance Evaluation Assessment of Adequacy concurrent with its DNA for the 2020 IAP/EIS. Based on this assessment, the BLM determined that the existing ANILCA Section 810 Evaluation prepared in support of the 2020 IAP/EIS remains adequate, and there are no new circumstances or information which would substantively change the findings made for each of the alternatives analyzed in the 2020 IAP/EIS.

As such, the analysis and conclusions presented in the detailed ANILCA Section 810 Evaluation in Appendix E of the 2020 IAP/EIS for Alternative A and the cumulative case also apply to the decision in this ROD, because the Decision is substantially the same as Alternative A in the 2020 IAP/EIS. As a result, the impacts of this Decision on subsistence resources will be no more than those analyzed for Alternative A in the 2020 IAP/EIS.

- 1) *Without the Cumulative Case:* The effects of the plan adopted in this ROD exceed the “may significantly restrict” threshold, and thus a positive ANILCA Section 810 determination was made for the community of Nuiqsut. Reductions in the availability of subsistence resources and limitations on subsistence user access may significantly restrict subsistence uses for the community of Nuiqsut.
- 2) *With the Cumulative Case:* The cumulative case is presented in Appendix E of the Final IAP/EIS and includes, but is not limited to, offshore oil and gas development in both Federal and State waters, the proposed Willow and Nanushuk developments, additional oil and gas development east of the NPR-A on State lands, two gas pipelines running south from the North Slope, and potential oil spills and gas releases. The effects of the cumulative case exceed the “may significantly restrict” threshold, and thus a positive ANILCA §810 determination was made for the communities of Nuiqsut, Utqiagvik, Wainwright, and Point Lay. Reductions in the availability of subsistence resources may significantly restrict subsistence uses for these four communities, and limitations on subsistence user access may also significantly restrict subsistence uses for the community of Nuiqsut.

Section 810(a) of ANILCA provides that no “withdrawal, reservation, lease, permit, or other use, occupancy or disposition of the public lands which would significantly restrict subsistence uses shall be effected” until the federal agency gives the required notice and holds a hearing in accordance with Section 810(a)(1) and (2), and makes the three determinations required by Section 810(a)(3)(A), (B), and (C). The BLM found in the subsistence evaluation that all the alternatives considered in the IAP, when considered together with all the past, present, and reasonably foreseeable future cumulative effects discussed in the IAP/EIS, may significantly restrict subsistence uses. Therefore, the BLM undertook the notice and hearing procedures required by ANILCA §810(a)(1) and (2), as described above, and now must make the three determinations required by §810(a)(3)(A), (B), and (C). 16 U.S.C. 3120(a)(3)(A), (B), and (C).

The BLM has determined that the plan adopted in this ROD meets the following requirements (16 U.S.C. 3120(a)(3)(A), (B), and (C)) for federal actions that may result in a significant restriction on subsistence uses:

- 1) *The significant restriction of subsistence uses is necessary, and consistent with sound management principles for the utilization of the public lands.*

The BLM prepared the 2020 IAP/EIS in accordance with its responsibility to manage the NPR-A under the authority of two laws passed in 1976, the NPRPA and the FLPMA. The NPRPA authorizes and directs the Secretary of the Interior to undertake an “expeditious program of competitive leasing of oil and gas in the National Petroleum Reserve-Alaska” (42 U.S.C. 6508(a)). At the same time, the statute also requires that all oil and gas activities “undertaken pursuant to this section shall include or provide for such conditions,

restrictions, and prohibitions as the Secretary deems necessary or appropriate to mitigate reasonably foreseeable and significantly adverse effects on the surface resources” of the NPR-A and that maximum protection be provided for significant surface values, including environmental, fish and wildlife, historical, scenic, and subsistence values consistent with the purposes of the act (42 U.S.C. 6504 and 6508).

It was in furtherance of these objectives, together with other management guidance found in the NPRPA, FLPMA, NEPA, and ANILCA, that the IAP/EIS was undertaken. After considering a broad range of alternatives, the decision described in this ROD was developed to make available lands for environmentally responsible oil and gas exploration and development, while minimizing impacts to important subsistence resources and subsistence-use areas. The resulting decision considers the necessity for economically feasible development while providing effective protections to minimize any impacts on subsistence resources and uses. Under this decision, making some lands unavailable for oil and gas leasing, prohibiting new infrastructure in most of the lands made unavailable for leasing, and utilizing performance-based lease stipulations and ROPs serve as the primary mitigations to be used to reduce the impact of the proposed activity on subsistence resources.

The BLM has considered and balanced a variety of factors with regard to the proposed activity on public lands, including the comments received during public meetings and hearings which stressed the importance of protecting important caribou habitats for both the Teshekpuk Caribou Herd and the Western Arctic Herd of caribou. As with the plan adopted in the 2020 IAP/ROD, the plan adopted in this ROD may significantly restrict subsistence uses for the communities of Nuiqsut, Atkasuk, Utqiagvik, and Wainwright with respect to potential reductions in the availability of subsistence resources and (for Nuiqsut) with respect to limitations on subsistence user access; however, the plan adopted in this ROD reduces the potential for a significant restriction of subsistence uses for the communities of Nuiqsut, Atkasuk, Utqiagvik, Wainwright, and Anaktuvuk Pass with respect to potential reductions in the abundance of subsistence resources when compared to the plan under the 2020 IAP/ROD. The BLM has determined that the significant restriction that may occur under Alternative A, when considered together with all the possible impacts of the cumulative case, is necessary, consistent with sound management principles for the use of these public lands, and for BLM to fulfill the management goals for the Reserve as guided by the statutory directives in the NPRPA, FLPMA, and other applicable laws.

2) The proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition.

The BLM has determined that this Decision involves the minimal amount of public lands necessary to accomplish the purposes for which the IAP/EIS was undertaken. Given the management and policy objectives previously described and the statutory directives of the NPRPA and FLPMA, the agency considered a number of factors in identifying whether to make additional lands unavailable for leasing, and if so, which lands. In particular, the agency considered the location of areas with high potential for oil and gas resources, the location and amount of land necessary for an economically feasible leasing program, the importance of surface resources and uses, and measures to reduce the possibility of a significant restriction on subsistence uses. The plan adopted by this Decision strikes a balance between these various considerations by allowing for oil and gas development in the NPR-A, while at the same time providing important protections to reduce impacts to important subsistence species and uses.

Specifically, this Decision makes unavailable for leasing large tracts of land important to the Teshekpuk Caribou Herd and Western Arctic Herd, both of which are of great importance for subsistence use. This Decision also makes unavailable for leasing the majority of the NPR-A’s coastline, which encompasses

coastal lands and water that contain important subsistence resources and habitat. In addition, this decision provides infrastructure setbacks on rivers important for subsistence use and access, and provides other protections, in the form of required operating procedures, for subsistence users and subsistence resources and their habitats.

On the basis of the above, the BLM has determined that the decision makes available for leasing the minimum amount of public lands necessary to allow for oil and gas development while providing necessary protection for subsistence users and resources.

3) Reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.

During scoping for the 2020 IAP/EIS, the BLM identified subsistence use as one of the major issues to be addressed. Information on access, harvests, and traditional use patterns was gathered during the NEPA process through meetings in villages on the North Slope, meetings with the NPR-A Working Group, and consultation with tribal and local governments. The plan adopted in this Decision, including detailed lease stipulations and required operating procedures, contains significant restrictions and requirements for lessees/permittees, including setbacks and prohibitions to minimize impacts to important subsistence uses and resources.

Consultation and coordination with North Slope communities and Native village representatives will continue to provide a valuable avenue for the exchange of information and oversight. The key components of mitigation in the plan are making lands important for the Teshekpuk Caribou Herd and the Western Arctic Herd of Caribou unavailable for oil and gas leasing, prohibiting new infrastructure in most of these unavailable lands, and making important coastal lands and waters unavailable for leasing.

Additional protections include, but are not limited to:

- Required Operating Procedure (ROP) E-1 will require all roads to be designed, constructed, maintained, and operated to create minimal environmental impacts and to protect subsistence use and access to subsistence hunting and fishing areas.
- ROPs H-1 and H-2 require additional consultation with potentially impacted communities to implement project specific mitigation measures to reduce impacts to subsistence users.
- Stipulation K-1 includes setbacks from rivers, including setbacks of at least a mile along rivers identified as important for subsistence use.
- Stipulations K-9, K-10, and K-11 provide protections for caribou through prohibitions on leasing and new infrastructure, pipeline and road design standards where essential roads and pipelines are allowed, and ground and air traffic restrictions.

Based on these mitigation measures and the other prohibitions, restrictions, requirements and limitations to surface resources in the performance-based lease stipulations and best management practices, the BLM has determined that the decision presented in this ROD includes reasonable steps to minimize adverse impacts on subsistence uses and resources.

3.7 ENVIRONMENTAL JUSTICE

Executive Order 12898 requires that an agency identify and address “as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” The 2020 IAP/EIS identified direct and indirect impacts that may

affect the Iñupiat residents of the North Slope Borough. These residents qualify as a minority population and could potentially be disproportionately impacted by this Decision.

Since the Iñupiat are the principal full-time residents of the areas covered by this decision, it is not possible to both implement a successful oil and gas leasing program while entirely avoiding impacts to this population. Therefore, this Decision mitigates impacts to this population. It accomplishes this primarily through making some lands unavailable for oil and gas leasing, including a large portion of subsistence use areas for the communities of Atkasuk, Utqiagvik, and Nuiqsut; by adopting lease stipulations and ROPs that protect subsistence resources, access to those resources, and public health; and by monitoring lessees'/permittees' activities to ensure compliance with requirements.

3.8 FLOODPLAIN MANAGEMENT AND PROTECTION OF WETLANDS

The following findings are based on a comprehensive impact analysis done in compliance with Executive Orders 11988 and 11990 in the 2020 IAP/EIS (see section 3.3.2).

3.8.1 Executive Order 11988—Floodplain Management

Executive Order 11988 concerning the protection of floodplains requires an agency to provide leadership and to take action to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities. Pursuant to the order, the agency has a responsibility to:

- 1) Evaluate the potential effects of any actions that may take place in a floodplain
- 2) Ensure that its planning programs and budget requests reflect consideration of flood hazards and floodplain management; and
- 3) Prescribe procedures to implement the policies and requirements of Executive Order 11988.

Additional requirements are as follows:

- 1) Before taking an action, each agency shall determine whether the proposed action will occur in a floodplain and the evaluation required will be included in any statement prepared under Section 102(2)(C) of the NEPA (42 U.S.C. 4332(2)(C)).
- 2) If an agency has determined to, or proposes to, conduct, support, or allow an action to be located in a floodplain, the agency shall consider alternatives to avoid adverse effects and incompatible development in the floodplains. If the head of the agency finds that the only practicable alternative consistent with the law and with the policy presented in this Order requires siting in a floodplain, the agency shall, prior to taking action,
 - a) design or modify its action in order to minimize potential harm to or within the floodplain, consistent with regulations, and
 - b) prepare documentation explaining why the action is proposed to be located in the floodplain.

The following discussion summarizes the evaluation and findings of impacts to floodplains as presented in the 2020 IAP/EIS for the Alternative A and applicable to this Decision. It also identifies protective mitigations developed to avoid or lessen impacts to floodplains. More than 95 percent of the NPR-A may be classified as wetlands, which includes associated floodplains. Total avoidance of floodplains is impossible because of the extremely large proportion of the area that can be classified as wetlands and because floodplains are a large part of the flat, low-lying wetlands in the Arctic Coastal Plain, which dominates much of the planning area

that contains any reasonable potential, according to the USGS, for oil or gas development. Consequently, it is likely that oil and gas infrastructure will need to be located within floodplains.

The long-term effects of oil and gas exploration and development activities, both direct and cumulative in nature, on these floodplains are expected to be insignificant (negligible to minimal) in the context of the large floodplain area in the NPR-A. The combined effect of exploration and development will be unlikely to significantly impact any plant species or community, cause significant soil loss, or result in other than short-term and localized loss of water resources or water quality (See e.g. 2020 IAP/EIS Section 3.3.2, Wetlands and Floodplains). Therefore, no significant impacts are expected that will affect public health, safety, and welfare through changes in the supply, quality, recharge or discharge and pollution of water, or flood and storm hazards or sedimentation and erosion. No impacts will occur that will result in long-term changes in the natural ecosystem.

The impacts that could occur to floodplains will be mitigated to the greatest extent practicable primarily through:

- making a large portion of the coastal plain east of Utqiagvik unavailable for oil and gas leasing,
- prohibiting nearly all new infrastructure in approximately 1.1 million acres of that unavailable area,
- making lands near Kasegaluk Lagoon and Peard Bay and large portions of Utukok River Uplands Special Area unavailable for oil and gas leasing and infrastructure, and
- the stipulations and required operating procedures incorporated into this ROD. The stipulations and required operating procedures offer a variety of protections that protect floodplains (see Appendix A), including setbacks from streams for short-term activities as well as permanent facilities.

In addition to the practicable mitigation included in the plan adopted by this Decision, the BLM (and, in some cases, other federal agencies) will consider alternatives to avoid adverse effects and incompatible development in the floodplains before any ground activities are approved. This will be done through subsequent NEPA reviews and analysis, which will be conducted before any construction or operation permits or approvals are issued. Compliance with the Executive Order 11988 will be undertaken at these subsequent stages through consideration of all practicable alternatives and additional mitigation in order to ensure that all possible protection is provided for the floodplains' functions and values.

3.8.2 Executive Order 11990—Protection of Wetlands

Executive Order 11990 concerning the protection of wetlands requires that the BLM consider factors relevant to the proposal's effect on the survival and quality of the wetlands. Factors to be considered include the following:

- 1) Public health, safety, and welfare; including water supply, quality, recharge and discharge, pollution; flood and storm hazards; and sediment and erosion;
- 2) Maintenance of natural systems; including conservation and long-term productivity of existing flora and fauna, species and habitat diversity and stability, hydrologic utility, fish, wildlife, timber, and food and fiber resources; and,
- 3) Other uses of wetlands in the public interest, including recreation, scientific, and cultural uses.

In furtherance of the NEPA (42 U.S.C. 4331(b)(3)) to improve and coordinate federal plans, functions, programs, and resources so that the nation may attain the widest range of beneficial uses of the environment without degradation and risk to health or safety, the agency, to the extent permitted by law, shall avoid

undertaking or providing assistance for new construction located in wetland unless the head of the agency finds:

- 1) There is no practicable alternative to such construction, and
- 2) The proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

In making this finding the head of the agency may take into account economic, environmental and other pertinent factors. The following discussion summarizes the evaluation of impacts and findings to wetlands as presented in the 2020 IAP/EIS in under Alternative A and applicable to this Decision. It also identifies protective mitigations developed to avoid or lessen impacts to wetlands.

More than 95 percent of the NPR-A may be classified as wetlands. Total avoidance of wetlands is impossible because of the extremely large proportion of the area that can be classified as wetlands. Consequently, it is likely that oil and gas infrastructure will need to be located within wetlands. The long-term effects of oil and gas exploration and development activities, including direct, indirect, and cumulative effects, on the wetlands of the planning area are expected to be insignificant (negligible to minimal) in the context of the wetlands of the NPR-A. The combined effect of exploration and development will be unlikely to significantly impact any plant species or community, cause significant soil loss, or result in other than short-term and localized loss of water resources or water quality (See e.g., NPR-A Final IAP/EIS Section 3.3.2, Wetlands and Floodplains). Therefore, no significant impacts are expected that will affect public health, safety, and welfare through changes in the supply, quality, recharge or discharge and pollution of water, flood and storm hazards or sedimentation and erosion. No impacts will occur that will result in long-term changes in the natural ecosystem.

The impacts that could occur to wetlands will be mitigated to the greatest extent practicable primarily through:

- making lands near Kasegaluk Lagoon and Peard Bay, a large portion of the coastal plain east of Utqiagvik, and a large portion of the Utukok River Uplands Special Area unavailable for oil and gas leasing and infrastructure,
- the stipulations and ROPs incorporated into this ROD. The stipulations and ROPs offer a variety of protections that protect floodplains (see Appendix A). Given that nearly all of the NPR-A is in wetlands, nearly all of the stipulations and ROPs provide some protection for wetland resources.

In addition to the practicable mitigation included in the plan, the BLM (and, in some cases, other federal agencies) will consider alternatives to avoid adverse effects and incompatible development in the wetlands before any ground activities are approved. This will be done through subsequent NEPA reviews and analysis, which will be conducted before any construction or operation permits or approvals are issued. Compliance with the Executive Order 11990 will be undertaken at these subsequent stages through consideration of all practicable alternatives and additional mitigation in order to ensure that all possible protection is provided for the wetlands functions and values.

3.9 WILD AND SCENIC RIVERS

Section 3.4.7 of the 2020 IAP/EIS describes the process by which BLM considered Wild and Scenic River eligibility and suitability. The plan considered twelve rivers or river segments previously found to be eligible and suitable for designation, but this ROD does not revisit those findings or make recommendations for Congressional designation in the National Wild and Scenic River System, instead protecting them through other means. The eligible rivers and river segments are entirely within BLM's management. The plan adopted

in this ROD provides protection to these rivers and river segments and their wild and scenic river values. Under the plan, the BLM will manage all twelve rivers or river segments to protect their free flow, water quality, and outstandingly remarkable values. In addition to this commitment, the plan includes decisions that protect the rivers and river segments and lands surrounding them. All but three of the twelve rivers or river segments in NPR-A are within the area in the southwestern part of the NPR-A in which no leasing will be allowed and in which nearly all new infrastructure will be prohibited. The portions of three rivers that are in lands that would be available for lease and in which new infrastructure could be permitted have setbacks (one mile for the Utukok and Kokolik rivers and a half mile for the Awuna River) under stipulation K-1 that would limit the infrastructure that could be in these setbacks.

4 PUBLIC INVOLVEMENT

The BLM considered public comments throughout the NPR-A 2020 IAP/EIS planning process, as well as the 2012 IAP/EIS planning process in which the framework for the plan being adopted by this Decision was initially analyzed. In addition, the BLM offered consultation with federally recognized tribes and Alaska Native corporations as part of the preparation of the DNA for the 2020 IAP/EIS.

The following list highlights major steps in the public involvement process for both IAP/EIS efforts. For more information on public involvement for the 2012 effort, see Chapter 5 of the 2012 IAP/EIS. For more information on public involvement for the 2020 effort, see Appendix C of the 2020 IAP/EIS.

4.1 2012 IAP/EIS EFFORT

- Scoping: Scoping occurred from July 28 to October 1, 2010. The BLM held eight public meetings in Alaska and received approximately 147,000 comment submissions.
- Public Review of the Draft IAP/EIS: The comment period for the Draft IAP/EIS occurred from March 30 through June 15, 2012. The BLM held eight public meetings in Alaska and received more than 401,000 comments.
- Comments received after the Final IAP/EIS was released and prior to the 2013 ROD: In reaching the decisions in this ROD, the BLM reviewed and fully considered comments received after distribution of the Final IAP/EIS on December 19, 2012. The comments did not identify any significant new circumstances or information related to environmental concerns bearing upon the proposed action or its impacts. Instead, they generally reflect concerns already raised by comments submitted during scoping and the public's review of the Draft IAP/EIS.

In addition to the above, the plan benefited from suggestions and careful review of the analysis in the IAP/EIS by four cooperating agencies - the North Slope Borough, the State of Alaska, the U.S. Fish and Wildlife Service, and the U.S. Bureau of Ocean Energy Management. (The State of Alaska withdrew as a cooperating agency on September 12, 2012.)

Consultation occurred during the IAP/EIS process with:

- Tribes as required by a Presidential Executive Memorandum dated April 29, 1994,
- Communities, tribal organizations, and Native corporations on the North Slope by high-ranking Alaskan Department of Interior and BLM officials January 30 to February 4, 2013,
- Multiple agencies, including the U.S. Fish and Wildlife Service, U.S. National Park Service, U.S. Bureau of Ocean Energy, Environmental Protection Agency, and the State of Alaska Department of Environmental Conservation in accordance with the June 2011 "Memorandum of Understanding among the U.S. Department of Agriculture, U.S. Department of the Interior, and

U.S. Environmental Protection Agency, Regarding Air Quality Analyses and Mitigation for Federal Oil and Gas Decisions through the National Environmental Policy Act Process” to model potential air quality impacts of oil and gas activities in the NPR-A and to develop appropriate air quality protection measures,

- the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration—Fisheries pursuant to the Endangered Species Act, and
- Alaska’s State Historic Preservation Office pursuant to the National Historic Preservation Act.

Pursuant to ANILCA 810(a)(1) and (2), the BLM also conducted hearings in North Slope communities to gather comments regarding potential impacts to subsistence use resulting from the alternatives considered in the IAP/EIS.

4.2 2020 IAP/EIS EFFORT

- Scoping: Scoping occurred from November 21, 2018, to February 15, 2019. The BLM held eight public meetings in Alaska and received approximately 56,000 comment submissions, including form letters.
- Public Review of the Draft IAP/EIS: The comment period for the Draft IAP/EIS occurred from November 25, 2019, through February 5, 2020. The BLM held eight public meetings in Alaska and received more than 82,000 comments, including form letters and signed petitions.
- Comments received after the Final IAP/EIS was released and prior to the ROD: In reaching the decision in this ROD, the BLM reviewed and fully considered comments received after distribution of the Final IAP/EIS on June 26, 2020. The comments did not identify any significant new circumstances or information related to environmental concerns bearing upon the proposed action or its impacts. Instead, they generally reflect concerns already raised by comments submitted during scoping and the public’s review of the Draft IAP/EIS.

In addition to the above, the plan benefited from suggestions and careful review of the analysis in the IAP/EIS by several cooperating agencies - the Bureau of Ocean Energy Management, Iñupiat Community of the Arctic Slope, National Park Service, North Slope Borough, State of Alaska, and U.S. Fish and Wildlife Service.

Consultation occurred during the IAP/EIS process with:

- Tribes as required by a Presidential Executive Memorandum dated April 29, 1994;
- Communities, tribal organizations, and Native corporations on the North Slope;
- The U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration—Fisheries pursuant to the Endangered Species Act; and
- Alaska’s State Historic Preservation Office pursuant to the National Historic Preservation Act.

Pursuant to ANILCA §810(a)(1) and (2), the BLM also conducted hearings in North Slope communities to gather comments regarding potential impacts to subsistence use resulting from the alternatives considered in the IAP/EIS.

Appendix A

Lease Stipulations, and Required Operating Procedures

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Appendix A. Lease Stipulations and Required Operating Procedures

A.1 DEFINITIONS

The following definitions apply to the stipulations and required operating procedures listed in this appendix. The Glossary of the Final Integrated Activity (IAP)/Environmental Impact Statement (EIS) has additional definitions.

- **Abandonment:** The proper closure of a facility, piping, or well, whose use has been discontinued, meeting all applicable state and federal regulations, stipulations, required operating procedures, and best management practices.
- **Active floodplain:** The lowland and relatively flat areas adjoining inland and coastal waters, including the flood-prone areas of offshore islands, composing, at a minimum, that area subject to a 1 percent or greater chance of flooding in any given year (also referred to as the 100-year or base floodplain).
- **Aggregation:** An aggregation of marine mammals is defined as three or more animals.
- **Authorized Officer (BLM):** Designated Bureau of Land Management (BLM) personnel responsible for a certain area of a project; for this Record of Decision, generally this would be the BLM State Director or other designated official with delegated authority such as the Arctic District Manager or State Office Branch Chief for Energy and Minerals.
- **Available:** When referring to oil and gas leasing, available lands could be offered. Lands that are already leased could be offered for leasing if the existing lease ends.
- **Body of Water or Water body:** A lake, river, stream, creek, or pond that holds water throughout the summer and supports a minimum of aquatic life.
- **Buffer:** A zone extending outward or inward from the periphery of a “protected” feature for a specified distance. Activities and development may be prohibited or limited by type or time within the buffer dependent on the goal associated with applying the buffer.
- **Class I air quality area:** One of 156 protected areas, such as national parks over 6,000 acres, wilderness areas over 5,000 acres, national memorial parks over 5,000 acres, and international parks that were in existence as of August 1977, where air quality should be given special protection. Federal Class I areas are subject to maximum limits on air quality degradation called air quality increments (often referred to as prevention of significant deterioration [PSD] increments). All areas of the United States not designated as Class I are Class II areas. The air quality standards in Class I areas are more stringent than national ambient air quality standards.

- **Consultation:** Consultation, as it is referenced in the lease stipulations, does not infer formal consultation as required under other legal mandates such as “Section 7 Consultation” under the ESA. Rather, consultation implies that the BLM or the Lessee/Permittee will contact other agencies or entities to inform them of potential actions and to seek input on noted topics. This includes informal contacts, and written, electronic, and/or verbal communication.
- **Criteria air pollutants:** The six most common air pollutants in the U.S.: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (both PM₁₀ and PM_{2.5} inhalable and respirable particulates), and sulfur dioxide (SO₂). Congress has focused regulatory attention on these six pollutants because they endanger public health and the environment, are widespread throughout the U.S., and come from a variety of sources. Criteria air pollutants are typically emitted from many sources in industry, mining, transportation, electricity generation, energy production, and agriculture.
- **Development:** The phase of petroleum operations that occurs after exploration has proven successful and before full-scale production. The newly discovered oil or gas field is assessed during an appraisal phase, a plan to fully and efficiently exploit it is created, and additional wells are usually drilled.
- **Essential road/pipeline crossing:** Places where the use authorization indicates the crossing should be to minimize impacts to resources while still achieving the purpose of the project.
- **Exception:** A one-time exemption to a lease stipulation or required operating procedure, determined on a case-by-case basis.
- **Exploration:** The search for economic deposits of minerals, gas, oil, or coal through the practices of geology, geochemistry, geophysics, drilling, shaft sinking, and mapping.
- **Feasible:** Capable of being accomplished in a successful manner within a reasonable time, taking into account economic, environmental, legal, social, and technological factors.
- **Greenhouse gas (GHG):** A gas that absorbs and emits thermal radiation in the lowest layers of the atmosphere. This process is the fundamental cause of the greenhouse effect. The primary greenhouse gases that are considered air pollutants are carbon dioxide, methane, nitrous oxide, and chlorofluorocarbons.
- **Haul-out:** A land or sea-ice location where pinnipeds exit the water for birthing, molting, nursing, resting, and breeding.
- **Hazardous air pollutants (HAPs):** Also known as toxic air pollutants, those that cause or may cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental and ecological effects. The U.S. Environmental Protection Agency is required to control 187 HAPs. Examples of HAPs are benzene (found in gasoline), perchlorethylene (emitted from dry cleaning facilities), and methylene chloride (used as a solvent).

- **Heavy equipment:** All industrial construction, operations, and maintenance vehicles that generally are not intended to be driven on a highway due to their weight, size, or specialized uses.
- **Infrastructure:** The underlying foundation or basic framework; substructure of a community, such as schools, police, fire services, hospitals, water, and sewer systems; permanent structures; does not include subsistence camps and cabins or single-season ice structures.
- **Modification:** A change to a lease stipulation or required operating procedure either temporarily or for the life of the lease.
- **No surface occupancy (NSO):** An area that is open for mineral leasing but does not allow the construction of surface oil and gas facilities in order to protect other resource values.
- **Objective:** A concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective form the basis for further planning to define the precise steps to be taken and the resources to be used to achieve identified goals.
- **Ordinary high water mark:** A line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.
- **Permanent oil and gas facilities:** Permanent Facilities include production facilities, pipelines, roads, airstrips, production pads, docks and other bottom-founded structures, seawater-treatment plants, and other structures associated with an oil and gas operation that occupy land for more than one winter season; also included are material sites such as sand and gravel, and “temporary platforms” if those platforms are used for production rather than exploration. Exploration wellheads and seasonal facilities such as ice roads and ice pads are excluded, even when the pads are designed for use in successive winters. This definition does not include over-summering ice pads for exploration purposes.
- **Reclamation:** Reclamation helps to ensure that any effects of oil and gas development on the land and on other resources and uses are not permanent. The ultimate objective of reclamation is the rehabilitation of ecosystem function, including re-introduction of any natural vegetation, hydrology, and wildlife habitats affected by surface disturbances from construction and operating activities at an oil and gas site. In most cases, this means a condition or function equal to or closely approximating that which existed before the land was disturbed.
- **Required operating procedure (ROP):** Carried out during proposal implementation and based on laws, regulations, executive orders, Bureau of Land Management planning manuals, policies, instruction memoranda, and applicable planning documents.

- **Riparian:** Occurring next to streams and rivers and directly influenced by water. A riparian community is characterized by certain types of vegetation, soils, hydrology, and fauna and requires free or unbound water or conditions more moist than that normally found in the area.
- **Setback:** A distance by which a structure or other feature is set back from a designated line.
- **SO_x:** Sulfur oxides, including sulfur dioxide (SO₂). A product of vehicle tailpipe emissions.
- **Spill prevention control and countermeasure (SPCC) plan:** Required by the U.S. Environmental Protection Agency 40 CFR 112 to be on file within 6 months of project inception; a contingency plan for avoiding, containing, and responding to spills or leaks of hazardous materials.
- **Standard:** A model, example, or goal established by authority, custom, or general consent as a rule for the measurement of quantity, weight, extent, value, or quality.
- **Stipulation:** A requirement or condition or land allocation placed by the Bureau of Land Management on the lease, which binds the leaseholder's operations within that lease. This Decision provides stipulations that apply to all future leases issued under the Plan adopted by this Decision in the National Petroleum Reserve in Alaska.
- **Unavailable:** When referring to oil and gas leasing, unavailable lands would not be offered for oil and gas leasing.
- **Vertical support member (VSM):** Pipe piling embedded in the ground to support the aboveground pipe in areas of thaw-unstable permafrost.
- **Vibroseis:** A device that uses a truck-mounted vibrator plate coupled to the ground to generate a wave train up to 7 seconds in duration and comprising a sweep of frequencies. The recorded data from an upswing or down sweep (increasing or decreasing frequency respectively) are added together and compared with the source input signals to produce a conventional-looking seismic section. The device is used increasingly in land surveys instead of explosives.
- **Volatile organic compound (VOC):** A chemical that reacts in the atmosphere with nitrogen oxides in the presence of sunlight and heat to form ozone. VOCs contribute significantly to photochemical smog production and certain health problems. Examples of VOCs are gasoline fumes and oil-based paints.
- **Waiver:** A permanent exemption to a stipulation or required operating procedure.

A.2 APPLICABILITY OF REQUIREMENTS/STANDARDS

A2.1 Lease Stipulations

Appropriate stipulations are attached to an oil and gas lease when the BLM issues it. As part of a lease contract, stipulations are specific to the lease. All oil and gas activity permits issued to a permittee must comply with the lease stipulations appropriate to the activity under review, such as exploratory drilling or production pad construction.

A stipulation included in an oil and gas lease would be subject to the following, as appropriate:

- A waiver—A permanent exemption to a stipulation on a lease
- An exception—A one-time exemption to a lease stipulation, determined through the normal permitting process
- A modification—A change attached to a lease stipulation, either temporarily or for the life of the lease

The Authorized Officer (AO) may authorize a modification to a lease stipulation only if she or he determines that the factors leading to the stipulation have changed sufficiently to make the stipulation no longer justified; the proposed operation would still have to meet the objective stated for the stipulation.

While the BLM may grant a waiver, exception, or modification of a stipulation through the permitting process, it may also impose additional requirements through permitting terms and conditions to meet the objectives of any stipulation. This would be the case if the AO considers that such requirements are warranted to protect the land and resources, in accordance with the BLM's responsibility under relevant laws and regulations.

A2.2 Required Operating Procedures

The required operating procedures (ROPs) describe the protective measures that the BLM will impose on applicants during the permitting process. Similar to lease stipulations, the objective of a ROP must be met in order for exceptions, modifications, or waivers to be granted.

Any applicant requesting authorization for an activity from the BLM will have to address the applicable ROPs in one of the following ways:

- Before submitting the application (e.g., performing and documenting subsistence consultation or surveys);
- As part of the application proposal (e.g., including in the proposal statements that the applicant will meet the objective of the ROP and how the applicant intends to achieve that objective); and
- As a term imposed by the BLM in a permit.

At the permitting stage, the BLM Authorized Officer will not include those ROPs that, because of their location or other inapplicability, are not relevant to a specific permit application. Note also that at the permit stage, the BLM AO may establish additional requirements as warranted to protect the land, resources, and uses in accordance with the BLM's responsibilities under relevant laws and regulations.

A.3 LEASE STIPULATIONS AND REQUIRED OPERATING PROCEDURES

A3.1 Lease Stipulations and Required Operating Procedures that Apply in Select Biologically Sensitive Areas¹

Lease Stipulation K-1 – River Setbacks

- NSO
- No new infrastructure, except essential road and pipeline crossings
- Sand and gravel mining (mineral materials disposal) authorized on a case-by-case basis

This measure would be applied to relevant new leases. On lands unavailable for leasing in the respective alternatives, K-1 would be a ROP. The decision indicated below in subparagraphs (a) and (d) modify Protection 1 of the Colville River Special Area Management Plan (reinstated by this Decision) by widening its applicability to 2 miles.

Objective: Minimize the disruption of natural flow patterns and changes to water quality; the disruption of natural functions resulting from the loss or change to vegetative and physical characteristics of floodplain and riparian areas; the loss of spawning, rearing or over-wintering habitat for fish; the loss of cultural and paleontological resources; the loss of raptor habitat; impacts to subsistence cabin and campsites; the disruption of subsistence activities; and impacts to scenic and other resource values.

Requirement/Standard: Permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited in the streambed and adjacent to the rivers listed below at the distances identified. (Gravel mines may be located within the active floodplain consistent with ROP E-8). On a case-by case basis, and in consultation with federal, State, and North Slope Borough regulatory and resource agencies (as appropriate, based on agency legal authority and jurisdictional responsibility), essential pipeline and road crossings to the main channel will be permitted through setback areas. The below setbacks may not be practical within river deltas; in such deltas, permanent facilities shall be designed to withstand a 200-year flood event. In the below list, if no upper limit for the setback is indicated, the setback extends to the head of the stream as identified in the National Hydrography Dataset.

- Colville River:** a 2-mile setback from the boundary of NPR-A where the river determines the boundary along the Colville River as determined by cadastral survey to be the highest

¹ Protections outline in this section act as both lease stipulations and ROPs. For oil and gas leases, these protections attach to the lease at the time of sale and cannot be superseded by future ROPs in subsequent IAPs. They govern all on-lease infrastructure associated with development of the lease. For oil and gas infrastructure not associated with development of the lease and for non-oil and gas activities permitted in the NPR-A, these protections act as ROPs and attach at the time the permit is issued.

high watermark on the left (western or northern) bank and from both banks' ordinary high watermark where BLM-manages both sides of the river up through T5S, R30W, U.M. Above that point to its source at the juncture of Thunder and Storm creeks the setback will be ½ mile. Note: The planning area excludes conveyed Native lands along the lower reaches of the Colville River. Development of road crossings intended to support oil and gas activities shall be consolidated with other similar projects and uses to the maximum extent possible. Note: This provision does not apply to intercommunity or other permanent roads constructed with public funds for general transportation purposes, though the BLM would encourage minimal use of the setback area. This preserves the opportunity to plan, design, and construct public transportation systems to meet the economic, transportation, and public health and safety needs of the State of Alaska and/or communities within National Petroleum Reserve-Alaska.

- b. **Ikpikpuk River:** a 2-mile setback from of the ordinary high watermark of the Ikpiuk River extending from the mouth upstream through T7 N, R11W, U.M.; above that the setback would be for 1 mile to the confluence of the Kigalik River and Maybe Creek.
- c. **Miguakiak River:** a ½-mile setback from the ordinary high watermark.
- d. **Kikiakrorak and Kogosukruk Rivers:** A 2-mile setback from the top of the bluff (or ordinary high watermark if there is no bluff) on the Kikiakrorak River downstream from T2N., R4W, U.M. and on the Kogosukruk River (including Branch of Kogosukruk River, Henry Creek, and two unnamed tributaries off the southern bank) downstream from T2N, R3W, U.M. The setback from these streams in the named townships and further upstream as applicable will be a ½-mile from the top of the bluff or bank if there is no bluff.
- e. **Fish Creek:** a 3-mile setback from the highest high watermark of the creek downstream from the eastern edge of section 31, T11N, R1E., U.M. and a ½-mile setback from the bank's highest high watermark farther upstream.
- f. **Judy Creek:** a ½-mile setback from the ordinary high watermark.
- g. **Ublutuoch (Tijmiasugvik) River:** a ½-mile setback from the ordinary high water mark.
- h. **Alaktak River:** a 1-mile setback from the ordinary high water mark.
- i. **Chipp River:** a 1-mile setback from the ordinary high water mark.
- j. **Oumalik River:** a ½-mile setback from the Oumalik River ordinary high water mark from the mouth upstream to section 5, T8N, R14W, U.M., and a ½ mile setback in and above section 5, T8N, R14W, U.M.
- k. **Titaluk River:** a 2-mile setback from the ordinary high water mark from its confluence with the Ikpiukpuk River upstream through T7N, R12W, U.M.; above that point the setback would be ½-mile from the ordinary high-water mark.

- l. **Kigalik River:** a ½-mile setback from the ordinary high water mark.
- m. **Maybe Creek:** a ½-mile setback from the ordinary high water mark.
- n. **Topagoruk River:** a 1-mile setback from the ordinary high water mark.
- o. **Ishuktak Creek:** a ½-mile setback from the ordinary high water mark.
- p. **Meade River:** a 1-mile setback from the ordinary high water mark on BLM-managed lands.
- q. **Usuktuk River:** a 1-mile setback from the ordinary high water mark on BLM-managed lands.
- r. **Pikroka Creek:** a ½-mile setback from the ordinary high water mark.
- s. **Nigisaktuvik River:** a 1-mile setback from the ordinary high water mark.
- t. **Inaru River:** a 1-mile setback from the ordinary high water mark.
- u. **Kucheak Creek:** a ½-mile setback from the ordinary high water mark.
- v. **Avalik River:** a 1-mile setback from the ordinary high water mark.
- w. **Niklavik Creek:** a ½-mile setback from the ordinary high water mark.
- x. **Kugrua River:** a ½-mile setback from the ordinary high water mark.
- y. **Kungok River:** a 1-mile setback from the ordinary high water mark on BLM-managed lands.
- z. **Kolipsun Creek:** a ½-mile setback from the ordinary high water mark upstream through T13N, R28W, U.M.
- aa. **Maguriak Creek:** a ½-mile setback from the ordinary high water mark upstream through T12N, R29W, U.M.
- ab. **Mikigealiak River:** a ½-mile setback from the ordinary high water mark upstream through T12N, R30W, U.M.
- ac. **Kuk River:** a 1-mile setback from the ordinary high water mark on BLM-managed lands.
- ad. **Ketik River:** a 1-mile setback from the ordinary high water mark.
- ae. **Kaolak River:** a 1-mile setback from the ordinary high water mark.

- af. **Ivisaruk River:** a 1-mile setback from the ordinary high water mark.
- ag. **Nokotlek River:** a ½-mile setback from the ordinary high water mark.
- ah. **Ongorakvik River:** a ½-mile setback from the ordinary high water mark.
- ai. **Tunalik River:** a ½-mile setback from the ordinary high water mark.
- aj. **Avak River:** a ½-mile setback from the ordinary high water mark within the NPR-A.
- ak. **Nigu River:** a ½-mile setback from the ordinary high water mark from the confluence with the Etivluk River upstream to the boundary of NPR-A
- al. **Etivluk River:** a ½-mile setback from the ordinary high water mark.
- am. **Ipnavik River:** a ½-mile setback from the ordinary high water mark.
- an. **Kuna River:** a ½-mile setback from the ordinary high water mark.
- ao. **Kiligwa River:** a ½-mile setback from the ordinary high water mark.
- ap. **Nuka River:** a ½-mile setback from the ordinary high water mark.
- aq. **Driftwood Creek:** a ½-mile setback from the ordinary high water mark.
- ar. **Utukok River:** a 1-mile setback from the ordinary high water mark within the NPR-A.
- as. **Awuna River:** a ½-mile setback from the ordinary high water mark.
- at. **Carbon Creek:** a ½-mile setback from the ordinary high water mark.
- au. **Kokolik River:** a 1-mile setback from the ordinary high water mark within the NPR-A.
- av. **Keolok Creek:** a ½-mile setback from the ordinary high water mark.

The decisions in subparagraphs K-1(a) and K-1(d) modify Colville River Management Plan Protection 1 by widening the setback in that measure to 2 miles. Protection 1 thus is modified to the following:

Colville River Special Area Management Plan-Protection 1

Objective: Minimize the loss of arctic peregrine falcon nesting habitat in the Colville River Special Area.

Requirement/Standard: To minimize the direct loss of arctic peregrine falcon nesting habitat and to protect nest sites in the Colville River Special Area the following protective measures apply:

Permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited in the stream bed and adjacent to the rivers listed below at the distances identified. On a case-by-case basis, and in consultation with federal, State, and North Slope Borough regulatory and resource agencies (as appropriate; based on agency legal authority and jurisdictional responsibility), essential pipeline and road crossings perpendicular to the main channel will be permitted through setback areas.

- a. Colville River: downstream of the Etivluk River a continuous 2-mile setback measured from the highest high watermark on the left bank (facing downstream); upstream of the Etivluk River a 2-mile setback measured from the ordinary high watermark of the bank on both sides of the river. Development of road crossings intended to support oil and gas activities shall be consolidated with other similar projects and uses to the maximum extent possible. This provision does not apply to intercommunity or other permanent roads constructed with public funds for general transportation purposes.
- b. Kikiakrorak River: downstream from T2N, R4W, U.M., a continuous 2-mile setback as measured from the top of the bluff (or bank if there is no bluff) of both sides of the river.
- c. Kogosukruk River: downstream from T2N, R3W, U.M., a continuous 2-mile setback as measured from the top of the bluff (or bank if there is no bluff) of both sides of the river and several of its tributaries.

Lease Stipulation K-2 – Deep Water Lakes

- NSO
- ROP for new infrastructure
- Sand and gravel mining authorized on a case-by-case basis

Note: This measure would be applied to relevant new leases. On lands unavailable for leasing, K-2 would be a ROP.

Objective: Minimize the disruption of natural flow patterns and changes to water quality; the disruption of natural functions resulting from the loss or change to vegetative and physical characteristics of deep water lakes; the loss of spawning, rearing or over wintering habitat for fish; the loss of cultural and paleontological resources; impacts to subsistence cabin and campsites; and the disruption of subsistence activities.

Requirement/Standard: Generally, permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited on the lake or lakebed and within ¼ mile of the ordinary high water mark of any deep lake as determined to be in lake zone III (i.e., depth greater than 13 feet [4 meters]; Mellor 1985). On a case-by-case basis in consultation with federal, State and North Slope Borough regulatory and resource agencies (as appropriate based on agency legal authority and jurisdictional responsibility), essential pipeline(s), road crossings, and other permanent facilities may be considered through the permitting process in these areas where the lessee can demonstrate on a site-specific basis that impacts will be minimal.

Lease Stipulation K-3 – Waterbodies and Riparian Areas

Objective: Protect fish-bearing rivers, streams, and lakes from blowouts and minimize alteration of riparian habitat.

Requirement/Standard: Exploratory drilling is prohibited in rivers and streams, as determined by the active floodplain, and fish-bearing lakes.

Lease Stipulation K-4 - Kogru River, Dease Inlet, Admiralty Bay, Elson Lagoon, Peard Bay, Wainwright Inlet/Kuk River, and Kasegaluk Lagoon, and their associated islands

- No leasing
- No new infrastructure, except essential pipeline crossings (see requirement/standard for pipeline crossings)
- Sand and gravel mining authorized on a case-by-case basis

Objective: Protect fish and wildlife habitat (including, but not limited to, that for waterfowl and shorebirds, caribou insect-relief, and marine mammals), preserve air and water quality, and minimize impacts to subsistence activities and historic travel routes on the major coastal waterbodies.

Requirement/Standard (Development):

The Kogru River, Dease Inlet, Admiralty Bay, Elson Lagoon, Peard Bay, Wainwright Inlet/Kuk River, and Kasegaluk Lagoon, and their associated Islands are unavailable for leasing.

With the exception of linear features such as pipelines, no permanent oil and gas facilities are permitted on or under the water within $\frac{3}{4}$ mile seaward of the shoreline (as measured from mean high tide) of the major coastal waterbodies or the natural coastal islands (to the extent that the seaward subsurface is within NPR-A). Elsewhere, permanent facilities within the major coastal waterbodies will only be permitted on or under the water if they can meet all the following criteria:

- a. Design and construction of facilities shall minimize impacts to subsistence uses, travel corridors, seasonally concentrated fish and wildlife resources.
- b. Daily operational activities, including use of support vehicles, watercraft, and aircraft traffic, alone or in combination with other past, present, and reasonably foreseeable activities, shall be conducted to minimize impacts to subsistence uses, travel corridors, and seasonally concentrated fish and wildlife resources.
- c. The location of oil and gas facilities, including artificial islands, platforms, associated pipelines, ice or other roads, bridges or causeways, shall be sited and constructed so as to not pose a hazard to navigation by the public using traditional high-use subsistence-related travel routes into and through the major coastal waterbodies as identified by the North Slope Borough.
- d. Demonstrated year-round oil spill response capability, including the capability of adequate response during periods of broken ice or open water, or the availability of alternative methods to prevent well blowouts during periods when adequate response capability cannot be demonstrated. Such alternative methods may include seasonal drilling restrictions, improvements in blowout prevention technology, equipment and/or changes in operational procedures, and “top-setting” of hydrocarbon-bearing zones.

- e. Reasonable efforts will be made to avoid or minimize impacts related to oil spill response activities, including vessel, aircraft, and pedestrian traffic that add to impacts or further compound “direct spill” related impacts on area resources and subsistence uses.
- f. Before conducting open water activities, the permittee shall consult with the Alaska Eskimo Whaling Commission and the North Slope Borough to minimize impacts to the fall and spring subsistence whaling activities of the communities of the North Slope.

Lease Stipulation K-5 – Coastal Area Setbacks

- NSO
- No new infrastructure, except essential coastal infrastructure (see requirement/standard for essential coastal infrastructure)
- Sand and gravel mining authorized on a case-by-case basis.

Note: This measure would be applied to relevant new leases. On lands unavailable for leasing K-5 would be a ROP.

Objective: Protect coastal waters and their value as fish and wildlife habitat (including, but not limited to, that for waterfowl, shorebirds, and marine mammals), minimize hindrance or alteration of caribou movement within caribou coastal insect-relief areas; protect the summer and winter shoreline habitat for polar bears, and the summer shoreline habitat for walrus and seals; prevent loss of important bird habitat and alteration or disturbance of shoreline marshes; and prevent impacts to subsistence resources and activities.

Requirement/Standard:

- a. Exploratory well drill pads, production well drill pads, or a central processing facility for oil or gas would not be allowed in coastal waters or on islands between the northern boundary of the Reserve and the mainland, or in inland areas within one mile of the coast. (Note: This would include the entirety of the Kasegaluk Lagoon and Peard Bay Special Areas.) Other facilities necessary for oil and gas production within NPR-A that necessarily must be within this area (e.g., barge landing, seawater treatment plant, or spill response staging and storage areas) would not be precluded. Nor would this stipulation preclude infrastructure associated with offshore oil and gas exploration and production or construction, renovation, or replacement of facilities on existing gravel sites. Lessees/permittees shall consider the practicality of locating facilities that necessarily must be within this area at previously occupied sites such as various Husky/USGS drill sites and Distant Early Warning-Line sites. All lessees/permittees involved in activities in the immediate area must coordinate use of these new or existing sites with all other prospective users. Before conducting open water activities, the lessee shall consult with the Alaska Eskimo Whaling Commission, the North Slope Borough, and local whaling captains associations to minimize impacts to the fall and spring subsistence whaling activities of the communities of the North Slope. In a case in which the BLM authorizes a permanent oil and gas facility within the Coastal Area, the lessee/permittee shall develop and implement a monitoring plan to assess the effects of the facility and its use on coastal habitat and use.

- b. Marine vessels used as part of a BLM-authorized activity shall maintain a 1-mile buffer from the shore when transiting past an aggregation of seals (primarily spotted seals), Steller's sea lions, or walruses using a terrestrial haulout unless doing so would endanger human life or violate safe boating practices. Marine vessels shall not conduct ballast transfers or discharge any matter into the marine environment within 3 miles of the coast except when necessary for the safe operation of the vessel.

Lease Stipulation K-6 – Goose Molting Area

- No leasing
- ROP for new infrastructure
- Sand and gravel mining authorized on a case-by-case basis

Note: Except for less than 10,000 acres east of the mouth of the Ikpikpuk River, new non-subsistence infrastructure would be prohibited in the goose molting area. None of the area is available for oil and gas leasing or exploratory drilling.

Objective: Minimize disturbance to molting geese and loss of goose molting habitat in and around lakes in the Goose Molting Area.

Requirement/Standard (General): Within the Goose Molting Area no permanent oil and gas facilities, except for pipelines, will be allowed within 1 mile of the shoreline of goose molting lakes. No waiver, exception, or modification will be considered. Prior to the permitting of a pipeline in the Goose Molting Area, a workshop will be convened to determine the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include but will not be limited to federal, state, and North Slope Borough representatives. In addition, only "in field" roads will be authorized as part of oil and gas field development.

Requirement/Standard (Development): In the Goose Molting Area, the following standards will be followed for permitted activities:

- a. Within the Goose Molting Area from June 15 through August 20, all off-pad activities and major construction activities using heavy equipment (e.g., sand/gravel extraction and transport, pipeline and pad construction, but not drilling from existing production pads) shall be suspended (see also ROP K-9), unless approved by the authorized officer in consultation with the appropriate federal, State, and North Slope Borough regulatory and resource agencies. The intent of this requirement is to restrict activities that will disturb molting geese during the period when geese are present.
- b. Water extraction from any lakes used by molting geese shall not alter hydrological conditions that could adversely affect identified goose-feeding habitat along lakeshore margins. Considerations will be given to seasonal use by operators (generally in winter) and geese (generally in summer), as well as recharge to lakes from the spring snowmelt.
- c. Oil and gas activities will avoid altering (i.e., damage or disturbance of soils, vegetation, or surface hydrology) critical goose-feeding habitat types along lakeshore margins (grass/sedge/moss) and salt marsh habitats.

- d. Permanent oil and gas facilities (including gravel roads, pads, and airstrips, but excluding pipelines) and material sites will be sited outside the identified buffers and restricted surface occupancy areas. Additional limits on development footprint apply
- e. Between June 15 and August, 20 within the Goose Molting Area, oil and gas facilities shall incorporate features (e.g., temporary fences, siting/orientation) that screen/shield human activity from view of any Goose Molting Area lake, as identified by the authorized officer in consultation with appropriate federal, State, and North Slope Borough regulatory and resource agencies.
- f. Strategies to minimize ground traffic shall be implemented from June 15 through August 20. These strategies may include limiting trips, use of convoys, different vehicle types, etc. to the extent practicable. The permittee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the authorized officer if resulting disturbance is determined to be unacceptable.
- g. Within the Goose Molting Area aircraft use (including fixed wing and helicopter) shall be restricted from June 15 through August 20 unless doing so endangers human life or violates safe flying practices. Restrictions may include: (1) limiting flights to two round-trips/week, and (2) limiting flights to corridors established by the BLM after discussions with appropriate federal, State, and North Slope Borough regulatory and resource agencies. The permittee shall submit with the development proposal an aircraft use plan that considers these and other mitigation. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the authorized officer if resulting disturbance is determined to be unacceptable. Note: This site-specific ROP is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of the stipulations and ROPs. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.
- h. Any permit for development issued under this IAP/EIS will include a requirement for the permittee to conduct monitoring studies necessary to adequately determine consequences of development and any need for change to mitigations. Monitoring studies will be site- and development-specific within a set of over-arching guidelines developed by the BLM after conferring with appropriate federal, State, North Slope Borough agencies. The study(ies) will include the construction period and will continue for a minimum of 3 years after construction has been completed and production has begun. The monitoring studies will be a continuation of evaluating the effectiveness of ROP K-6 requirements in meeting the objective of K-6 and determine if any changes to the ROP or any project specific mitigation(s) are necessary. If changes are determined to be necessary, the BLM, with the permittee and/or their representative, will conduct an assessment of the feasibility of altering development operation (e.g., reduced human activity, visibility barriers, noise abatement). Any changes determined necessary will be implemented prior to authorization of any new construction.

Lease Stipulation K-8 – Brant Survey Area

- No leasing
- ROP for new infrastructure
- Sand and gravel mining authorized on a case-by-case basis

Objective: Minimize the loss or alteration of habitat for, or disturbance of, nesting and brood rearing brant in the Brant Survey Area. None of the area is available for oil and gas leasing or exploratory drilling.

Requirement/Standard:

- a. Aerial surveys for brant nesting colonies and brood-rearing areas shall be conducted for a minimum of 2 years before authorization of construction of permanent facilities. At a minimum, the survey area shall include the proposed development site(s) (i.e., the footprint) and the surrounding ½-mile area. These surveys shall be conducted following accepted BLM protocol.
- b. Development may be prohibited or activities curtailed within ½-mile of all identified brant nesting colonies and brood-rearing areas identified during the 2-year survey

Lease Stipulation K-9 –Teshekpuk Lake Caribou Habitat Area

Note: None of the area is available for oil and gas leasing or exploratory drilling. Therefore, K-9 will apply as a ROP. Portions of K-9 that apply to permanent infrastructure are only relevant to the portion of the Teshekpuk Lake Caribou Habitat Area available to application for such infrastructure, i.e., to those areas outside of the approximately 1.1 million acres near the lake where no new non-subsistence permanent infrastructure will be permitted.

Objective: Minimize disturbance and hindrance of caribou, or alteration of caribou movements through portions the Teshekpuk Lake Caribou Habitat Area that are essential for all season use, including calving and rearing, insect-relief, and migration.

Requirement/Standard: In the Teshekpuk Lake Caribou Habitat Area the following standards will be applied to permitted activities:

- a. Before authorization of construction of permanent facilities (limited as they may be by surface occupancy restrictions established in this decision), the permittee shall design and implement and report a study of caribou movement unless an acceptable study(s) specific to the Teshekpuk Caribou Herd has been completed within the last 10 years. The study shall include a minimum of four years of current data on the Teshekpuk Caribou Herd movements and the study design shall be approved by the authorized officer in consultation with the appropriate federal, State, and North Slope Borough wildlife and resource agencies. The study should provide information necessary to determine facility (including pipeline) design and location. Permittee may submit individual study proposals or they may combine with other permittees in the area to do a single, joint study for the entire Teshekpuk Lake Caribou Habitat Area. Study data may be gathered concurrently with other activities as approved by the authorized officer and in consultation with the appropriate federal, State, and North Slope Borough wildlife and resource agencies. A final report of the study results will be prepared and submitted. Prior to the permitting of a pipeline in the Teshekpuk Lake Caribou Habitat Area, a workshop will be convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife (specifically the Teshekpuk Caribou Herd) and subsistence resources. The workshop participants will include but will not be limited to federal, State, and North Slope Borough representatives.

All of these modifications will increase protection for caribou and other wildlife that utilize the Teshekpuk Lake Caribou Habitat Area during all seasons.

- b. Within the Teshekpuk Lake Caribou Habitat Area, permittee shall orient linear corridors when laying out oil and gas field developments to address migration and corralling effects and to avoid loops of road and/or pipeline that connect facilities.
- c. Ramps over pipelines, buried pipelines, or pipelines buried under the road may be required by the authorized officer, after consultation with appropriate federal, State, and North Slope Borough regulatory and resource agencies, in the Teshekpuk Lake Caribou Habitat Area where pipelines potentially impede caribou movement.
- d. Major construction activities using heavy equipment (e.g., sand/gravel extraction and transport, pipeline and pad construction, but not drilling from existing production pads) shall be suspended within Teshekpuk Lake Caribou Habitat Area from May 20 through August 20, unless approved by the authorized officer in consultation with the appropriate federal, State, and North Slope Borough regulatory and resource agencies. The intent of this requirement is to restrict activities that will disturb caribou during calving and insect-relief periods. If caribou arrive on the calving grounds prior to May 20, major construction activities will be suspended. The permittee shall submit with the development proposal a “stop work” plan that considers this and any other mitigation related to caribou early arrival. The intent of this latter requirement is to provide flexibility to adapt to changing climate conditions that may occur during the life of fields in the region.
- e. The following ground and air traffic restrictions shall apply in the areas and time periods indicated. Ground traffic restrictions apply to permanent oil and gas-related roads:
 1. Within the Teshekpuk Lake Caribou Habitat Area, from May 20 through August 20, traffic speed shall not exceed 15 miles per hour when caribou are within ½ mile of the road. Additional strategies may include limiting trips, using convoys, using different vehicle types, etc., to the extent practicable. The permittee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the authorized officer if resulting disturbance is determined to be unacceptable.
 2. The permittee or a contractor shall observe caribou movement from May 20 through August 20, or earlier if caribou are present prior to May 20. Based on these observations, traffic will be stopped:
 - a. Temporarily to allow a crossing by 10 or more caribou. Sections of road will be evacuated whenever an attempted crossing by a large number of caribou appears to be imminent. The permittee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation.
 - b. By direction of the authorized officer throughout a defined area for up to four weeks to prevent displacement of calving caribou.The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the authorized officer if resulting disturbance is determined to be unacceptable.
 3. Major equipment, materials, and supplies to be used at oil and gas work sites in the Teshekpuk Lake Caribou Habitat Area shall be stockpiled prior to or after the period of May 20 through August 20 to minimize road traffic during that period.

Lease Stipulation K-10 – Teshekpuk Lake Caribou Movement Corridor

- No leasing
- No new infrastructure/ ROP for new infrastructure
- Sand and gravel mining authorized on a case-by-case basis

Note: None of the area is available for oil and gas leasing or exploratory drilling. Therefore, K-10 will apply as a ROP. All of the former movement corridor northwest of Teshekpuk Lake and all but the eastern-most part of the other corridor that lies north of the Kogru River are within an area prohibiting new non-subsistence infrastructure. Therefore, this ROP only applies to the lands in the former corridor north of the Kogru River in Ts. 14-15 N., R. 2 W., U.M.

Objective: Minimize disturbance and hindrance of caribou, or alteration of caribou movements (that are essential for all season use, including calving and rearing, insect-relief, and migration) in the area extending from the eastern shore of Teshekpuk Lake eastward to the Kogru River.

Requirement/Standard: Within the Teshekpuk Lake Caribou Movement Corridor, no permanent oil and gas facilities, except for pipelines or other infrastructure associated with offshore oil and gas exploration and production, will be allowed. Prior to the permitting of permanent oil and gas infrastructure in the Caribou Movement Corridor, a workshop will be convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include but will not be limited to federal, State, and North Slope Borough representatives.

Lease Stipulation K-11 – Southern Caribou Calving Area

Note: None of the area is available for oil and gas leasing or exploratory drilling. Therefore, K-11 will apply as a ROP. All but the eastern-most part of the former Southern Caribou Calving Area lies within an area prohibiting new non-subsistence infrastructure. Therefore, this ROP only applies to the lands in the former area T. 14 N., Rs. 1-2 W., U.M.; T. 14 N., R. 1 E., U.M; and T. 15 N., R. 2 W., U.M.

Objective: Minimize disturbance and hindrance of caribou, or alteration of caribou movements (that are essential for all season use, including calving and post calving, and insect-relief) in the area south/southeast of Teshekpuk Lake.

Requirement/Standard: Within the Southern Caribou Calving Area, no permanent oil and gas facilities, except pipelines or other infrastructure associated with offshore oil and gas exploration and production, will be allowed. Prior to the permitting of permanent oil and gas infrastructure in the Southern Caribou Calving Area, a workshop will be convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include but will not be limited to federal, State, and North Slope Borough representatives.

Lease Stipulation K-12 - Colville River Special Area

Note: This measure would be applied to relevant new leases. On lands unavailable for leasing, K-12 would be a ROP.

Objective: Prevent or minimize loss of raptor foraging habitat (also see Lease Stipulation K-1).

Requirement/Standard: If necessary to construct permanent facilities within the Colville River Special Area, all reasonable and practicable efforts shall be made to locate permanent facilities as far from raptor nests as feasible. Additionally, within 15 miles of raptor nest sites, significant alteration of high quality foraging habitat shall be prohibited unless the lessee can demonstrate on a site-specific basis that impacts would be minimal. Of particular concern are ponds, lakes, wetlands, and riparian habitats.

Note: On a case-by-case basis, and in consultation with appropriate federal and State regulatory and resource agencies, essential pipeline and road crossings will be permitted through the Colville River Special Area where no other feasible or prudent options are available.

Lease Stipulation K-13 - Pik Dunes

- No leasing
- ROP for new infrastructure
- Sand and gravel mining authorized on a case-by-case basis

Note: None of the area is available for oil and gas leasing or exploratory drilling. Therefore, K-13 will apply as a ROP.

Objective: Retain unique qualities of the Pik Dunes, including geologic and scenic uniqueness, insect-relief habitat for caribou, and habitat for several uncommon plant species.

Requirement/Standard: Surface structures, except approximately perpendicular pipeline crossings and ice pads, are prohibited within the Pik Dunes.

Lease Stipulation K-14 – Utukok River Uplands Special Area

- No leasing, except the northernmost portion of the Special Area
- No new infrastructure, except the northernmost portion of the Special Area
- Sand and gravel mining authorized on a case-by-case basis

Note: This measure would be applied to relevant new leases. On lands unavailable for leasing, K-14 would be a ROP. Portions of K-14 that apply to permanent infrastructure are only relevant to the northern portion of the Utukok River Uplands Special Area available to application for such infrastructure.

Objective: Minimize disturbance and hindrance of caribou, or alteration of caribou movements through the Utukok River Uplands Special Area that are essential for all season use, including calving and rearing, insect-relief, and migration.

Requirement/Standard: In the Utukok River Uplands Special Area the following standards will be applied to permitted activities:

- a. Before authorization of construction of permanent facilities, the lessee shall design and implement and report a study of caribou movement unless an acceptable study(s) specific to the Western Arctic Herd has been completed within the last 10 years. The study shall include a minimum of four years of current data on the Western Arctic Herd's movements and the study design shall be approved by the authorized officer in consultation with the appropriate federal, State, and North Slope Borough wildlife and resource agencies and the Western Arctic Caribou Herd Working Group. The study should provide information necessary to determine facility (including pipeline) design and location. Lessees may submit individual study proposals or they may combine with other lessees in the area to do a single, joint study for the entire Utukok River Uplands Special Area. Study data may be gathered concurrently with other activities as approved by the authorized officer and in consultation with the appropriate federal, State, and North Slope Borough wildlife and resource agencies. A final report of the study results will be prepared and submitted. Prior to the permitting of a pipeline in the Utukok River Uplands Special Area, a workshop will be convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife (specifically the Western Arctic Herd) and subsistence resources. The workshop participants will include but will not be limited to federal, State, and North Slope Borough representatives. All of these modifications will increase protection for caribou and other wildlife that utilize the Utukok River Uplands Special Area during all seasons.
- b. Within the Utukok River Uplands Special Area, lessees shall orient linear corridors when laying out oil and gas field developments to address migration and corralling effects and to avoid loops of road and/or pipeline that connect facilities.
- c. Ramps over pipelines, buried pipelines, or pipelines buried under the road may be required by the authorized officer, after consultation with appropriate federal, State, and North Slope Borough regulatory and resource agencies, in the Utukok River Uplands Special Area where pipelines potentially impede caribou movement.
- d. Major construction activities using heavy equipment (e.g., sand/gravel extraction and transport, pipeline and pad construction, but not drilling from existing production pads) shall be suspended within Utukok River Uplands Special Area from May 20 through August 20, unless approved by the authorized officer in consultation with the appropriate federal, State, and North Slope Borough regulatory and resource agencies. The intent of this requirement is to restrict activities that will disturb caribou during calving and insect-relief periods. If caribou arrive on the calving grounds prior to May 20, major construction activities will be suspended. The lessee shall submit with the development proposal a "stop work" plan that considers this and any other mitigation related to caribou early arrival. The intent of this latter requirement is to provide flexibility to adapt to changing climate conditions that may occur during the life of fields in the region.
- e. The following ground and air traffic restrictions shall apply to permanent oil and gas-related roads in the areas and time periods indicated:
 1. Within the Utukok River Uplands Special Area, from May 20 through August 20, traffic speed shall not exceed 15 miles per hour when caribou are within ½ mile of the road. Additional strategies may include limiting trips, using convoys, using different vehicle types, etc., to the extent practicable. The lessee shall submit with

the development proposal a vehicle use plan that considers these and any other mitigation. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the authorized officer if resulting disturbance is determined to be unacceptable.

2. The lessee or a contractor shall observe caribou movement from May 20 through August 20, or earlier if caribou are present prior to May 20. Based on these observations, traffic will be stopped:
 - a. Temporarily to allow a crossing by 10 or more caribou. Sections of road will be evacuated whenever an attempted crossing by a large number of caribou appears to be imminent. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation.
 - b. By direction of the authorized officer throughout a defined area for up to four weeks to prevent displacement of calving caribou.

The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the authorized officer if resulting disturbance is determined to be unacceptable.

3. Major equipment, materials, and supplies to be used at oil and gas work sites in the Utukok River Uplands Special Area shall be stockpiled prior to or after the period of May 20 through August 20 to minimize road traffic during that period.
4. Within the Utukok River Uplands Special Area aircraft use (including fixed wing and helicopter) shall be restricted from May 20 through August 20 unless doing so endangers human life or violates safe flying practices. Authorized users of the NPR-A may be restricted from using aircraft larger than a Twin Otter, and limited to an average of one fixed-wing aircraft takeoff and landing per day per airstrip, except for emergency purposes. Restrictions may include prohibiting the use of aircraft larger than a Twin Otter by authorized users of the NPR-A, including oil and gas lessees, from May 20 through August 20 within the Utukok River Uplands Special Area, except for emergency purposes. The lessee shall submit with the development proposal an aircraft use plan that considers these and other mitigation. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the authorized officer if resulting disturbance is determined to be unacceptable. This lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of the stipulations and ROPs. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.
5. Aircraft shall maintain a minimum height of 1,000 feet above ground level (except for takeoffs and landings) over caribou winter ranges from December 1 through May 1, and 2,000 feet above ground level over the Utukok River Uplands Special Area from May 20 through August 20, unless doing so endangers human life or violates safe flying practices. Caribou wintering ranges will be defined annually by the authorized officer in consultation with the Alaska Department of Fish and Game. This lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of the

stipulations and ROPs. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.

Lease Stipulation K-15: Federal Mineral Estate under Native Lands

- Available for leasing
- Sand and gravel mining authorized on a case-by-case basis

A3.2 Required Operating Procedures

Waste Prevention, Handling, Disposal, Spills, Air Quality, and Public Health and Safety

ROP A-1

Objective: Protect the health and safety of oil and gas field workers and the general public by disposing of solid waste and garbage in accordance with applicable federal, State, and local law and regulations.

Requirement/Standard: Areas of operation shall be left clean of all debris.

ROP A-2

Objective: Minimize impacts on the environment from non-hazardous and hazardous waste generation. Encourage continuous environmental improvement. Protect the health and safety of oil field workers and the general public. Avoid human-caused changes in predator populations.

Requirement/Standard: Lessees/permittees shall prepare and implement a comprehensive waste management plan for all phases of exploration and development, including seismic activities. The plan shall be submitted to the authorized officer for approval, in consultation with federal, State, and North Slope Borough regulatory and resource agencies, as appropriate (based on agency legal authority and jurisdictional responsibility), as part of a plan of operations or other similar permit application.

Management decisions affecting waste generation shall be addressed in the following order of priority: 1) prevention and reduction, 2) recycling, 3) treatment, and 4) disposal. The plan shall consider and take into account the following requirements:

- a. Methods to avoid attracting wildlife to food and garbage. The plan shall identify precautions that are to be taken to avoid attracting wildlife to food and garbage.
- b. Disposal of putrescible waste. Requirements prohibit the burial of garbage. Lessees and permitted users shall have a written procedure to ensure that the handling and disposal of putrescible waste will be accomplished in a manner that prevents the attraction of wildlife. All putrescible waste shall be incinerated, backhauled, or composted in a manner approved by the authorized officer. All solid waste, including incinerator ash, shall be disposed of in an approved waste-disposal facility in accordance with EPA and Alaska Department of Environmental Conservation regulations and procedures. The burial of human waste is prohibited except as authorized by the authorized officer.

- c. Disposal of pumpable waste products. Except as specifically provided, the BLM requires that all pumpable solid, liquid, and sludge waste be disposed of by injection in accordance with EPA, Alaska Department of Environmental Conservation, and the Alaska Oil and Gas Conservation Commission regulations and procedures. On-pad temporary muds and cuttings storage, as approved by Alaska Department of Environmental Conservation, will be allowed as necessary to facilitate annular injection and/or backhaul operations.
- d. Disposal of wastewater and domestic wastewater. The BLM prohibits wastewater discharges or disposal of domestic wastewater into bodies of fresh, estuarine, and marine water, including wetlands, unless authorized by a National Pollutant Discharge Elimination System or State permit.

ROP A-3

Objective: Minimize pollution through effective hazardous-materials contingency planning.

Requirement/Standard: For oil- and gas-related activities, a hazardous materials emergency contingency plan shall be prepared and implemented before transportation, storage, or use of fuel or hazardous substances. The plan shall include a set of procedures to ensure prompt response, notification, and cleanup in the event of a hazardous substance spill or threat of a release. Procedures in the plan applicable to fuel and hazardous substances handling (associated with transportation vehicles) shall consist of ROPs if approved by the authorized officer. The plan shall include a list of resources available for response (e.g., heavy-equipment operators, spill-cleanup materials or companies), and names and phone numbers of federal, State, and North Slope Borough contacts. Other federal and State regulations may apply and require additional planning requirements. All appropriate staff shall be instructed regarding these procedures. In addition contingency plans related to facilities developed for oil production shall include requirements to:

- a. Provide refresher spill-response training to North Slope Borough and local community spill-response teams on a yearly basis,
- b. Plan and conduct a major spill-response field-deployment drill annually,
- c. Prior to production and as required by law, develop spill prevention and response contingency plans and participate in development and maintenance of the North Slope Subarea Contingency Plan for Oil and Hazardous Substances Discharges/Releases for the National Petroleum Reserve-Alaska operating area. Planning shall include development and funding of detailed (e.g., 1:26,000 scale) environmental sensitivity index maps for the lessee's/permittee's operating area and areas outside the lessee's/permittee's operating area that could be affected by their activities. (The specific area to be mapped shall be defined in the lease agreement and approved by the authorized officer in consultation with appropriate resource agencies.) Maps shall be completed in paper copy and geographic information system format in conformance with the latest version of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration's Environmental Sensitivity Index Guidelines. Draft and final products shall be peer reviewed and approved by the authorized officer in consultation with appropriate federal, State, and North Slope Borough resource and regulatory agencies.

ROP A-4

Objective: Minimize the impact of contaminants on fish, wildlife, and the environment, including wetlands, marshes and marine waters, as a result of fuel, crude oil, and other liquid chemical spills. Protect subsistence resources and subsistence activities. Protect public health and safety.

Requirement/Standard: Before initiating any oil and gas or related activity or operation, including field research/surveys and/or seismic operations, lessees/permittees shall develop a comprehensive spill prevention, control, and countermeasure plan per 40 CFR § 112 (Oil Pollution Act). The plan shall consider and take into account the following requirements:

- a. On-site Clean-up Materials. Sufficient oil-spill-cleanup materials (absorbents, containment devices, etc.) shall be stored at all fueling points and vehicle-maintenance areas and shall be carried by field crews on all overland moves, seismic work trains, and similar overland moves by heavy equipment.
- b. Storage Containers. Fuel and other petroleum products and other liquid chemicals shall be stored in proper containers at approved locations. Except during overland moves and seismic operations, fuel, other petroleum products, and other liquid chemicals designated by the authorized officer that in total exceed 1,320 gallons shall be stored within an impermeable lined and diked area or within approved alternate storage containers, such as over packs, capable of containing 110% of the stored volume. In areas within 500 feet of water bodies, fuel containers are to be stored within appropriate containment.
- c. Liner Materials. Liner material shall be compatible with the stored product and capable of remaining impermeable during typical weather extremes expected throughout the storage period.
- d. Permanent Fueling Stations. Permanent fueling stations shall be lined or have impermeable protection to prevent fuel migration to the environment from overfills and spills.
- e. Proper Identification of Containers. All fuel containers, including barrels and propane tanks, shall be marked with the responsible party's name, product type, and year filled or purchased.
- f. Notice of Reportable Spills. Notice of any reportable spill (as required by 40 CFR § 300.125 and 18 AAC § 75.300) shall be given to the authorized officer as soon as possible, but no later than 24 hours after occurrence.
- g. Identification of Oil Pans (“duck ponds”). All oil pans shall be marked with the responsible party's name.

ROP A-5

Objective: Minimize the impact of contaminants from refueling operations on fish, wildlife and the environment.

Requirement/Standard: Refueling of equipment within 500 feet of the active floodplain of any water body is prohibited. Fuel storage stations shall be located at least 500 feet from any water body with the exception that small caches (up to 210 gallons) for motor boats, float planes, ski planes, and small equipment, e.g. portable generators and water pumps, are permitted. The authorized officer may allow storage and operations at areas closer than the stated distances if properly designed to account for local hydrologic conditions.

ROP A-6

Objective: Minimize the impact on fish, wildlife, and the environment from contaminants associated with the exploratory drilling process.

Requirement/Standard: Surface discharge of reserve-pit fluids is prohibited.

ROP A-7

Objective: Minimize the impacts to the environment of disposal of produced fluids recovered during the development phase on fish, wildlife, and the environment.

Requirement/Standard: Discharge of produced water in upland areas and marine waters is prohibited.

ROP A-8

Objective: Minimize conflicts resulting from interaction between humans and bears during oil and gas activities.

Requirement/Standard: Oil and gas lessees and their contractors and subcontractors will, as a part of preparation of lease operation planning, prepare and implement bear-interaction plans to minimize conflicts between bears and humans. These plans shall include measures to:

- a. Minimize attraction of bears to the drill sites.
- b. Organize layout of buildings and work sites to minimize human/bear interactions.
- c. Warn personnel of bears near or on work sites and identify proper procedures to be followed.
- d. Establish procedures, if authorized, to discourage bears from approaching the work site.
- e. Provide contingencies in the event bears do not leave the site or cannot be discouraged by authorized personnel.
- f. Discuss proper storage and disposal of materials that may be toxic to bears.
- g. Provide a systematic record of bears on the work site and in the immediate area.

ROP A-9

Objective: Reduce air quality impacts.

Requirement/Standard: All oil and gas operations (vehicles and equipment) that burn diesel fuels must use “ultra-low sulfur” diesel as defined by the Alaska Department of Environmental Conservation-Division of Air Quality.

ROP A-10

Objective: Prevent unnecessary or undue degradation of the lands and protect health.

Requirement/Standard: This measure includes the following elements:

- a. Prior to initiation of a NEPA analysis for an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source (hereafter project), the authorizing officer (BLM) may require the project proponent to provide a minimum of one year of baseline ambient air monitoring data for any pollutant(s) of concern as determined by BLM if no representative air monitoring data are available for the project area, or existing representative ambient air monitoring data are insufficient, incomplete, or do not meet

minimum air monitoring standards set by the Alaska DEC or the EPA. If BLM determines that baseline monitoring is required, this pre-analysis data must meet Alaska DEC and EPA air monitoring standards, and cover the year immediately prior to the submittal. Pre-project monitoring may not be appropriate where the life of the project is less than one year.

- b. The BLM may require monitoring for the life of the project depending on the magnitude of potential air emissions from the project, proximity to a federally mandated Class I area, sensitive Class II area (as identified on a case-by-case basis by Alaska DEC or a federal land management agency), or population center, location within or proximity to a non-attainment or maintenance area, meteorological or geographic conditions, existing air quality conditions, magnitude of existing development in the area, or issues identified during NEPA undertaken for the project.
- c. For an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the project proponent shall prepare (and submit for BLM approval) an emissions inventory that includes quantified emissions of regulated air pollutants from all direct and indirect sources related to the proposed project, including reasonably foreseeable air pollutant emissions of criteria air pollutants, volatile organic compounds, hazardous air pollutants, and greenhouse gases estimated for each year for the life of the project. The BLM will use this estimated emissions inventory to identify pollutants of concern and to determine the appropriate level of air analysis to be conducted for the proposed project.
- d. For an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the BLM may require the proponent to provide an emissions reduction plan that includes a detailed description of operator committed measures to reduce project related air pollutant emissions including, but not limited to greenhouse gases and fugitive dust.
- e. For an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the authorized officer may require air quality modeling for purposes of analyzing project direct, indirect or cumulative impacts to air quality. The BLM may require air quality modeling depending on the magnitude of potential air emissions from the project or activity, duration of the proposed action, proximity to a federally mandated Class I area, sensitive Class II area (as identified on a case-by-case basis by Alaska DEC or a federal land management agency), or population center, location within a non-attainment or maintenance area, meteorological or geographic conditions, existing air quality conditions, magnitude of existing development in the area, or issues identified during NEPA undertaken for the project. The BLM will determine the information required for a project specific modeling analysis through the development of a modeling protocol for each analysis. The authorized officer will consult with appropriate federal, State, and/or local agencies regarding modeling to inform his/her modeling decision and avoid duplication of effort. The modeling shall compare predicted impacts to all applicable local, State, and federal air quality standards and increments, as well as other scientifically defensible significance thresholds (such as impacts to air quality related values, incremental cancer risks, etc.).
- f. The BLM may require air quality mitigation measures and strategies within its authority (and in consultation with local, state, federal, and tribal agencies with responsibility for managing air resources) in addition to regulatory requirements and proponent committed

emission reduction measures, and for emission sources not otherwise regulated by Alaska DEC or EPA, if the air quality analysis shows potential future impacts to NAAQS or AAAQS or impacts above specific levels of concern for air quality related values (AQRVs).

- g. If ambient air monitoring indicates that project-related emissions are causing or contributing to impacts that would cause unnecessary or undue degradation of the lands, cause exceedances of NAAQS, or fail to protect health (either directly or through use of subsistence resources), the authorized officer may require changes in activities at any time to reduce these emissions to comply with the NAAQS and/or minimize impacts to AQRVs. Within the scope of BLM's authority, the BLM may require additional emission control strategies to minimize or reduce impacts to air quality.
- h. Publicly available reports on air quality baseline monitoring, emissions inventory, and modeling results developed in conformance with this best management procedure shall be provided by the project proponent to the North Slope Borough and to local communities and Tribes in a timely manner.

ROP A-11

Objective: Ensure that permitted activities do not create human health risks through contamination of subsistence foods.

Requirement/Standard: A lessee proposing a permanent oil and gas development shall design and implement a monitoring study of contaminants in locally-used subsistence foods. The monitoring study shall examine subsistence foods for all contaminants that could be associated with the proposed development. The study shall identify the level of contaminants in subsistence foods prior to the proposed permanent oil and gas development and monitor the level of these contaminants throughout the operation and abandonment phases of the development. If ongoing monitoring detects a measurable and persistent increase in a contaminant in subsistence foods, the lessee shall design and implement a study to determine how much, if any, of the increase in the contaminant in subsistence foods originates from the lessee's activities. If the study determines that a portion of the increase in contamination in subsistence foods is caused by the lessee's activities, the authorized officer may require changes in the lessee's processes to reduce or eliminate emissions of the contaminant. The design of the study/studies must meet the approval of the authorized officer. The authorized officer may consult with appropriate federal, State, and North Slope Borough agencies prior to approving the study/studies design. The authorized officer may require/authorize changes in the design of the studies throughout the operations and abandonment period, or terminate or suspend studies if results warrant.

ROP A-12

Objective: To minimize negative health impacts associated with oil spills.

Requirement/Standard: If an oil spill with potential impacts to public health occurs, the BLM, in undertaking its oil spill responsibilities, will consider:

- a. Immediate health impacts and responses for affected communities and individuals.
- b. Long-term monitoring for contamination of subsistence food sources.
- c. Long-term monitoring of potential human health impacts.
- d. Perceptions of contamination and subsequent changes in consumption patterns.

- e. Health promotion activities and communication strategies to maintain the consumption of traditional food.

Water Use for Permitted Activities

ROP B-1

Objective: Maintain populations of, and adequate habitat for, fish and invertebrates.

Requirement/Standard: Withdrawal of unfrozen water from rivers and streams during winter is prohibited. The removal of ice aggregate from grounded areas ≤ 4 -feet deep may be authorized from rivers on a site-specific basis.

ROP B-2

Objective: Maintain natural hydrologic regimes in soils surrounding lakes and ponds, and maintain populations of, and adequate habitat for, fish, invertebrates, and waterfowl.

Requirement/Standard: Withdrawal of unfrozen water from lakes and the removal of ice aggregate from grounded areas ≤ 4 -feet deep may be authorized on a site-specific basis depending on water volume and depth and the waterbody's fish community. Current water use requirements are:

- a. Lakes with sensitive fish (i.e., any fish except ninespine stickleback or Alaska blackfish): unfrozen water available for withdrawal is limited to 15% of calculated volume deeper than 7 feet; only ice aggregate may be removed from lakes that are ≤ 7 -feet deep.
- b. Lakes with only non-sensitive fish (i.e., ninespine stickleback or Alaska blackfish): unfrozen water available for withdrawal is limited to 30% of calculated volume deeper than 5 feet; only ice aggregate may be removed from lakes that are ≤ 5 .
- c. Lakes with no fish present, regardless of depth: water available for use is limited to 35% of total lake volume.
- d. In lakes where unfrozen water and ice aggregate are both removed, the total use shall not exceed the respective 15%, 30%, or 35% volume calculations.
- e. Additional modeling or monitoring may be required to assess water level and water quality conditions before, during, and after water use from any fish-bearing lake or lake of special concern.
- f. Any water intake structures in fish bearing or non-fish bearing waters shall be designed, operated, and maintained to prevent fish entrapment, entrainment, or injury. Note: All water withdrawal equipment must be equipped and must utilize fish screening devices approved by the Alaska Department of Fish and Game, Division of Habitat.
- g. Compaction of snow cover or snow removal from fish-bearing waterbodies shall be prohibited except at approved ice road crossings, water pumping stations on lakes, or areas of grounded ice.

Winter Overland Moves and Seismic Work

The following ROPs apply to overland moves, seismic work, and any similar cross-country vehicle use of heavy equipment on non-roaded surfaces during the winter season. These restrictions do not apply to the use of such equipment on ice roads after they are constructed.

ROP C-1

Objective: Protect grizzly bear, polar bear, and marine mammal denning and/or birthing locations.

Requirement/Standard:

- a. Grizzly bear dens—Cross-country use of all vehicles, equipment, and oil and gas activity is prohibited within 0.5 miles of occupied grizzly bear dens identified by the ADF&G or the U.S. Fish and Wildlife Service (USFWS), unless alternative protective measures are approved by the BLM AO, in consultation with the ADF&G.
- b. Polar bear dens—Cross-country use of vehicles, equipment, oil and gas activity, and seismic survey activity is prohibited within 1 mile of known or observed polar bear dens, unless alternative protective measures are approved by the BLM AO and are consistent with the Marine Mammal Protection Act and the Endangered Species Act (ESA).
- c. In order to limit disturbance around known polar bear dens, implement the following:
 1. Attempt to locate polar bear dens—Permittees seeking to carry out onshore activities in known or suspected polar bear denning habitat during the denning season (approximately November to April) must make efforts to locate occupied polar bear dens within and near areas of operation, utilizing den detection techniques approved in consultation with the USFWS. All observed or suspected polar bear dens must be reported to the USFWS prior to the initiation of activities.
 2. Observe the exclusion zone around known polar bear dens—Permittees must observe a 1-mile operational exclusion zone around all known polar bear dens during the denning season (approximately November–April, or until the female and cubs leave the areas). Should previously unknown occupied dens be discovered within 1 mile of activities, work must cease and the USFWS must be contacted for guidance. The USFWS will evaluate these instances to recommend the appropriate action. Potential actions may range from cessation or modification of work to conducting additional monitoring, and the holder of the authorization must comply with any additional measures specified.
 3. Use the den habitat map developed by the U.S. Geological Survey—This measure ensures that the location of potential polar bear dens is considered when conducting activities in the coastal areas of the Beaufort Sea.
 4. Polar bear den restrictions—Restrict the timing of the activity to limit disturbance around dens.
- d. In order to limit disturbance of activities to seal lairs in the nearshore area (< 9.8-foot water depth):
 1. Specific to seismic operations:
 - a. Prior to the initiation of winter seismic surveys on marine ice, the permittee will conduct a sound source verification test approved by the BLM and National Marine Fisheries Service (NMFS). The test is to measure the attenuation distance to the 120 decibels re 1 micro Pascal of project-associated sound levels through grounded ice to areas potentially occupied by ice seals (ungrounded ice and open water). The permittee will share the results with the BLM and the NMFS. The attenuation distance will be used to buffer all marine on-ice seismic survey activity operations to areas potentially occupied by ice seals.
 2. For all activities:

- a. Maintain airborne sound levels of equipment below 100 decibels re 20 micro Pascals at 66 feet. If equipment will be used that differs from what was originally proposed, the permittee must inform the BLM AO and share sound levels and air and water attenuation information for the new equipment.
- b. On-ice operations after May 1 will employ a full-time, trained, protected species observer on vehicles to ensure that all basking seals are avoided by vehicles by at least 500 feet and will ensure that all equipment with airborne noise levels above 100 decibels re 20 micro Pascals are operating at distances from observed seals that allow for the attenuation of noise to levels below 100 decibels. All sightings of seals will be reported to the BLM using a NMFS-approved observation form.
- c. Sea ice trails must not be greater than 12 feet wide. No driving will be allowed beyond the shoulder of the ice trail or off planned routes unless necessary to avoid ungrounded ice or for other human or marine mammal safety reasons. On-ice driving routes shall minimize travel over snow/ice/topographical features that could foster the development of birthing lairs.
- d. No unnecessary equipment or operations (e.g., camps) will be placed or used on sea ice.

ROP C-2

Objective: Protect stream banks, minimize compaction of soils, and minimize the breakage, abrasion, compaction, or displacement of vegetation.

Requirement/Standard:

- a. Ground operations shall be allowed only when frost and snow cover are at sufficient depths to protect the tundra. Ground operations shall cease when the spring snowmelt begins (approximately May 5 in the foothills area where elevations reach or exceed 500 feet and approximately May 15 in the northern coastal areas). The exact dates will be determined by the authorized officer.
- b. Low-ground-pressure vehicles shall be used for on-the-ground activities off ice roads or pads. Low-ground-pressure vehicles shall be selected and operated in a manner that eliminates direct impacts to the tundra by shearing, scraping, or excessively compacting the tundra mat. Note: This provision does not include the use of heavy equipment such as front-end loaders and similar equipment required during ice road construction.
- c. Bulldozing of tundra mat and vegetation, trails, or seismic lines is prohibited; however, on existing trails, seismic lines or camps, clearing of drifted snow is allowed to the extent that the tundra mat is not disturbed.
- d. To reduce the possibility of ruts, vehicles shall avoid using the same trails for multiple trips unless necessitated by serious safety or superseding environmental concern. This provision does not apply to hardened snow trails for use by low-ground-pressure vehicles such as Rolligons.
- e. The location of ice roads shall be designed and located to minimize compaction of soils and the breakage, abrasion, compaction, or displacement of vegetation. Offsets may be required to avoid using the same route or track in the subsequent year.

- f. Motorized ground-vehicle use within the Colville River Special Area associated with overland moves, seismic work, and any similar use of heavy equipment shall be minimized within an area that extends 1 mile west or northwest of the bluffs of the Colville River, and 2 miles on either side of the Kogosukruk and Kikiakrorak rivers and tributaries of the Kogosukruk River from April 15 through August 5, with the exception that use will be minimized in the vicinity of gyrfalcon nests beginning March 15. Such use will remain 1/2 mile away from known raptor nesting sites, unless authorized by the authorized officer.

ROP C-3

Objective: Maintain natural spring runoff patterns and fish passage, avoid flooding, prevent streambed sedimentation and scour, protect water quality, and protect stream banks.

Requirement/Standard: Crossing of waterway courses shall be made using a low-angle approach. Crossings that are reinforced with additional snow or ice (“bridges”) shall be removed, breached, or slotted before spring breakup. Ramps and bridges shall be substantially free of soil and debris.

ROP C-4

Objective: Avoid additional freeze-down of deep-water pools harboring over-wintering fish and invertebrates used by fish.

Requirement/Standard: Travel up and down streambeds is prohibited unless it can be demonstrated that there will be no additional impacts from such travel to over-wintering fish or the invertebrates they rely on. Rivers, streams, and lakes shall be crossed at areas of grounded ice whenever possible.

ROP C-5

Objective: Minimize the effects of high-intensity acoustic energy from seismic surveys on fish.

Requirement/Standard:

- a. When conducting vibroseis-based surveys above potential fish overwintering areas (water 6 feet deep or greater, ice plus liquid depth), operators shall follow recommendations by Morris and Winters (2005): only a single set of vibroseis shots should be conducted if possible; if multiple shot locations are required, these should be conducted with minimal delay; multiple days of vibroseis activity above the same overwintering area should be avoided if possible.
- b. When conducting air gun-based surveys in freshwater, operators shall follow standard marine mitigation measures that are applicable to fish (e.g., Minerals Management Service 2006): operators will use the lowest sound levels feasible to accomplish their data-collection needs; ramp-up techniques will be utilized (ramp-up involves the gradual increase in emitted sound levels beginning with firing a single air gun and gradually adding air guns until the desired operating level of the full array is obtained).
- c. When conducting explosive-based surveys, operators shall follow setback distances from fish-bearing waterbodies based on requirements outlined by Alaska Department of Fish and Game (1991).

Oil and Gas Exploratory Drilling

ROP D-1

Objective: Minimize surface impacts from exploratory drilling.

Requirement/Standard: Construction of permanent or gravel oil and gas facilities shall be prohibited for exploratory drilling. Use of a previously constructed road or pad may be permitted if it is environmentally preferred.

Facility Design and Construction

ROP E-1

Objective: Protect subsistence use and access to subsistence hunting and fishing areas and minimize the impact of oil and gas activities on air, land, water, fish, and wildlife resources.

Requirement/Standard: All roads must be designed, constructed, maintained, and operated to create minimal environmental impacts and to protect subsistence use and access to subsistence hunting and fishing areas. The authorized officer will consult with appropriate federal, State, and North Slope Borough regulatory and resources agencies prior to approving construction of roads. Subject to approval by the authorized officer, the construction, operation, and maintenance of oil and gas field roads is the responsibility of the lessee unless the construction, operation, and maintenance of roads are assumed by the appropriate governing entity.

ROP E-2

Objective: Protect fish-bearing water bodies, water quality, and aquatic habitats.

Requirement/Standard: Permanent oil and gas facilities, including roads, airstrips, and pipelines, are prohibited upon or within 500 feet as measured from the ordinary high water mark of fish-bearing waterbodies. Essential pipeline and road crossings will be permitted on a case-by-case basis. Note: Also refer to Stipulations K-1 and K-2.

Construction camps are prohibited on frozen lakes and river ice. Siting of construction camps on river sand and gravel bars is allowed and encouraged. Where leveling of trailers or modules is required and the surface has a vegetative mat, leveling shall be accomplished through blocking rather than use of a bulldozer.

ROP E-3

Objective: Maintain free passage of marine and anadromous fish and protect subsistence use and access to subsistence hunting and fishing.

Requirement/Standard: Linear infrastructure that connects to the shoreline (e.g., causeways and docks) is prohibited in river mouths or deltas. Artificial gravel islands and permanent bottom-founded structures are prohibited in river mouths or active stream channels on river deltas. In areas where it is permissible, linear infrastructure that connects to the shoreline shall be designed to ensure free passage of marine and anadromous fish and to prevent significant changes to nearshore oceanographic circulation patterns and water quality characteristics. The BLM will require submittal of a minimum of 2 years of site-relevant data on fish, circulation patterns, and water quality before approving a permit for construction. If such data do not exist, the permittee may be required to gather these data. A post-construction monitoring program, developed in consultation

with appropriate federal, State, and NSB regulatory and resource agencies, shall be required to track circulation patterns, water quality, and fish movements around the structure.

ROP E-4

Objective: Minimize the potential for pipeline leaks, the resulting environmental damage, and industrial accidents.

Requirement/Standard: All pipelines shall be designed, constructed, and operated under an authorized officer-approved Quality Assurance/Quality Control plan that is specific to the product transported and shall be constructed to accommodate the best available technology for detecting and preventing corrosion or mechanical defects during routine structural integrity inspections.

ROP E-5

Objective: Minimize impacts of the development footprint.

Requirement/Standard: Facilities shall be designed and located to minimize the development footprint. Issues and methods that are to be considered include:

- a. Use of maximum extended-reach drilling for production drilling to minimize the number of pads and the network of roads between pads;
- b. Sharing facilities with existing development;
- c. Collocation of all oil and gas facilities, except airstrips, docks, and seawater-treatment plants, with drill pads;
- d. Integration of airstrips with roads;
- e. Use of gravel-reduction technologies, e.g., insulated or pile-supported pads,
- f. Coordination of facilities with infrastructure in support of offshore development.

Note: Where aircraft traffic is a concern, consideration shall be given to balancing gravel pad size and available supply storage capacity with potential reductions in the use of aircraft to support oil and gas operations.

ROP E-6

Objective: Reduce the potential for ice-jam flooding, impacts to wetlands and floodplains, erosion, alteration of natural drainage patterns, and restriction of fish passage.

Requirement/Standard: Stream and marsh crossings shall be designed and constructed to ensure free passage of fish, reduce erosion, maintain natural drainage, and minimize adverse effects to natural stream flow. Note: Bridges, rather than culverts, are the preferred method for crossing rivers. When necessary, culverts can be constructed on smaller streams, if they are large enough to avoid restricting fish passage or adversely affecting natural stream flow.

ROP E-7

Objective: Minimize disruption of caribou movement and subsistence use.

Requirement/Standard: Pipelines and roads shall be designed to allow the free movement of caribou and the safe, unimpeded passage of the public while participating in subsistence activities. Listed below are the accepted design practices:

- a. Above ground pipelines shall be elevated a minimum of 7 feet as measured from the ground to the bottom of the pipeline at vertical support members.
- b. In areas where facilities or terrain may funnel caribou movement, ramps over pipelines, buried pipelines, or pipelines buried under roads may be required by the authorized officer after consultation with federal, State, and North Slope Borough regulatory and resource agencies (as appropriate, based on agency legal authority and jurisdictional responsibility).
- c. A minimum distance of 500 feet between pipelines and roads shall be maintained. Separating roads from pipelines may not be feasible within narrow land corridors between lakes and where pipelines and roads converge on a drill pad. Where it is not feasible to separate pipelines and roads, alternative pipeline routes, designs and possible burial within the road will be considered by the authorized officer.

ROP E-8

Objective: Minimize the impact of mineral materials mining activities on air, land, water, fish, and wildlife resources.

Requirement/Standard: Gravel mine site design and reclamation will be in accordance with a plan approved by the authorized officer. The plan shall be developed in consultation with appropriate federal, State, and North Slope Borough regulatory and resource agencies and consider:

- a. Locations outside the active flood plain.
- b. Design and construction of gravel mine sites within active flood plains to serve as water reservoirs for future use.
- c. Potential use of the site for enhancing fish and wildlife habitat.
- d. Potential storage and reuse of sod/overburden for the mine site or at other disturbed sites on the North Slope.

ROP E-9

Objective: Avoidance of human-caused increases in populations of predators of ground nesting birds.

Requirement/Standard:

- a. Lessee shall utilize best available technology to prevent facilities from providing nesting, denning, or shelter sites for ravens, raptors, and foxes. The lessee shall provide the authorized officer with an annual report on the use of oil and gas facilities by ravens, raptors, and foxes as nesting, denning, and shelter sites.
- b. Feeding of wildlife is prohibited and will be subject to non-compliance regulations.

ROP E-10

Objective: Minimize bird collisions with infrastructure, especially during migration and inclement weather.

Requirement/Standard: Flagging of structures, such as elevated utility lines and guy wires, shall be required to minimize bird collision. All facility external lighting, during all months of the year, shall be designed to direct artificial exterior lighting inward and downward or be fitted with shields to reduce reflectivity in clouds and fog conditions, unless otherwise required by the Federal Aviation Administration.

ROP E-11

Objective: Minimize impacts on bird species, particularly those listed under the ESA and BLM special status species, resulting from direct or indirect interaction with infrastructure.

Requirement/Standard: Bird species with special status are protected under **ROP E-10** and **ROP E-21**, and by the protections outlined below. In accordance with the guidance below, before the approval of infrastructure construction, the following studies shall be conducted, and recommended design elements shall be incorporated.

Special Conditions in Spectacled and/or Steller's Eiders Habitats:

- a. The BLM will require submittal of a minimum of 3 years of site-relevant survey data before authorization of construction, if such construction is within spectacled and Steller's eider habitats, as defined by the area contained within the USFWS Arctic Coastal Plain Aerial Waterbird Breeding Population Survey area or the Barrow Triangle Steller's Eider Survey area. The BLM will evaluate adequacy of survey data and ecological mapping (as required under **ROP E-12**) to determine if ground-based nest surveys are required. If required, spectacled and/or Steller's eider ground nest surveys shall be conducted, following accepted BLM protocol. Information gained from these surveys shall be used to make infrastructure siting decisions, as discussed in subparagraph "b," below. Data shall be transmitted to the BLM in a GIS format (ESRI shapefiles referencing the North American Datum of 1983).
- b. If spectacled and/or Steller's eiders are determined to be present within the proposed development area, the applicant shall work with the USFWS and BLM early in the design process to site roads and facilities in order to minimize impacts to nesting and brood-rearing eiders and their habitats. Such consultation shall address timing restrictions and other temporary mitigating measures, location of permanent facilities, placement of fill, alteration of eider habitat, aircraft operations, and management of high noise levels.

Special Conditions in Yellow-billed Loon Habitats:

The permittee shall determine and submit to the BLM information on the presence of yellow-billed loon habitat within a project area, using the most current data and analysis results from research conducted within the NPR-A.

- a. If yellow-billed loon habitat is determined to be present within the project area, the BLM will require submittal of a minimum of 3 years of site-relevant survey data of lakes greater than 25 acres within 1 mile of the proposed infrastructure. If required, surveys along shorelines of lakes shall be conducted, following accepted BLM protocol, during nesting in late June and during brood rearing in late August.
- b. The design and location of infrastructure must be such that disturbance is minimized. The default standard mitigation shall be a minimum 0.5-mile buffer around all recorded nest sites and shall be up to 1 mile, where feasible. Lakes with yellow-billed loon occupancy shall also include a minimum 1,625-foot buffer around the shoreline. Development would generally be prohibited within buffers. The BLM would consider waivers or modifications to this requirement if no other feasible option exists.

ROP E-12

Objective: Use ecological mapping as a tool to assess wildlife habitat before development of permanent facilities to conserve important habitat types during development.

Requirement/Standard: An ecological land classification map of the development area shall be developed before approval of facility construction. The map will integrate geomorphology, surface form, and vegetation at a scale, level of resolution, and level of positional accuracy adequate for detailed analysis of development alternatives. The map shall be prepared in time to plan one season of ground-based wildlife surveys, if deemed necessary by the authorized officer, before approval of the exact facility location and facility construction.

ROP E-13

Objective: Protect cultural and paleontological resources.

Requirement/Standard: Lessees shall conduct a cultural and paleontological resources survey prior to any ground-disturbing activity. Upon finding any potential cultural or paleontological resource, the lessee or their designated representative shall notify the authorized officer and suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer.

ROP E-14

Objective: Ensure the passage of fish at stream crossings.

Requirement/Standard: To ensure that crossings provide for fish passage, all proposed crossing designs shall adhere to the ROPs outlined in “Stream Crossing Design Procedure for Fish Streams on the North Slope Coastal Plain” by McDonald et al. (1994), “Fundamentals of Culvert Design for Passage of Weak-Swimming Fish” by Behlke et al. (1991), and other generally accepted best management procedures prescribed by the authorized officer. To adhere to these ROPs, at least 3 years of hydrologic and fish data shall be collected by the lessee for any proposed crossing of a stream whose structure is designed to occur, wholly or partially, below the stream’s ordinary high watermark. These data shall include, but are not limited to, the range of water levels (highest and lowest) at the location of the planned crossing, and the seasonal distribution and composition of fish populations using the stream.

ROP E-15

Objective: Prevent or minimize the loss of nesting habitat for cliff nesting raptors.

Requirement/Standard:

- a. Removal of greater than 100 cubic yards of bedrock outcrops, sand, and/or gravel from cliffs shall be prohibited.
- b. Any extraction of sand and/or gravel from an active river or stream channel shall be prohibited unless preceded by a hydrological study that indicates no potential impact by the action to the integrity of the river bluffs.

ROP E-17

Objective: Manage permitted activities to meet Visual Resource Management class objectives described below.

Class I: Natural ecological changes and very limited management activity are allowed. The level of change to the characteristic landscape should be very low and must not attract attention.

Class II: The level of change to the characteristic landscape should be low. Management activities may be seen, but should not dominate the view of the casual observer. Any changes should repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Class III: The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Class IV: The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize impacts through location and design by repeating form, line, color, and texture.

Requirement/Standard: At the time of application for construction of permanent facilities, the lessee/permittee shall, after consultation with the authorized officer, submit a plan to best minimize visual impacts, consistent with the Visual Resource Management class for the lands on which facilities would be located. A photo simulation of the proposed facilities may be a necessary element of the plan.

VRM classes:

- a. Class II – Wainwright Inlet and those areas where new infrastructure is not allowed.
- b. Class III – Except for those areas designated as VRM Class II, rivers and lands within 3 miles of segments of rivers identified as eligible for WSR designation in the 2013 IAP, the 2033 Northwest NPR-A IAP, or the 2008 Northeast NPR-A Supplemental IAP; also Kasegaluk Lagoon, Peard Bay, Elson Lagoon, Dease Inlet, and Admiralty Bay and lands within 3 miles of those waterbodies.
- c. Class IV – The rest of the area.

ROP E-18

Objective: Avoid and reduce temporary impacts to productivity from disturbance near Steller's and/or spectacled eider nests.

Requirement/Standard: Ground-level activity (by vehicle or on foot) within 200 meters of occupied Steller's and/or spectacled eider nests, from June 1 through August 15, will be restricted to existing thoroughfares, such as pads and roads. Construction of permanent facilities, placement of fill, alteration of habitat, and introduction of high noise levels within 200 meters of occupied Steller's and/or spectacled eider nests will be prohibited. In instances where summer (June 1 through August 15) support/construction activity must occur off existing thoroughfares, USFWS-approved nest surveys must be conducted during mid-June prior to the approval of the activity. Collected data will be used to evaluate whether the action could occur based on employment of a

200-meter buffer around nests or if the activity would be delayed until after mid-August once ducklings are mobile and have left the nest site.

Also, in cases in which oil spill response training is proposed to be conducted within 200 meters of shore in riverine, marine, or inter-tidal areas, the BLM will work with the USFWS to schedule the training at a time that is not a sensitive nesting/brood-rearing period or require that nest surveys be conducted in the training area prior to the rendering a decision on approving the training. The protocol and timing of nest surveys for Steller's and/or spectacled eiders will be determined in cooperation with the USFWS, and must be approved by the USFWS. Surveys should be supervised by biologists who have previous experience with Steller's and/or spectacled eider nest surveys.

ROP E-19

Objective: Provide information to be used in monitoring and assessing wildlife movements during and after construction.

Requirement/Standard: A representation, in the form of ArcGIS-compatible shape-files, of all new infrastructure construction shall be provided to the authorized officer. During the planning and permitting phase, shape-files representing proposed locations shall be provided. Within 6 months of construction completion, shape-files (within GPS accuracy) of all new infrastructure shall be provided. Infrastructure includes all gravel roads and pads, facilities built on pads, pipelines and independently constructed powerlines (as opposed to those incorporated in pipeline design). Gravel pads shall be included as polygon feature. Roads, pipelines, and powerlines may be represented as line features but must include ancillary data to denote width, number pipes, etc. Poles for power lines may be represented as point features. Ancillary data shall include construction beginning and ending dates.

ROP E-20

Objective: Minimize the impacts on bird species from direct interaction with aboveground utility infrastructure.

Requirement/Standard:

- a. To reduce the possibility of birds colliding with aboveground utility lines (power and communication), such lines would either be buried in access roads or would be suspended on VSMs. Exceptions are limited to the following situations:
 1. Overhead power or communication lines may be allowed when located entirely within the boundaries of a facility pad.
 2. Overhead power or communication lines may be allowed when engineering constraints at the specific and limited location make it infeasible to bury or connect the lines to a VSM.
 3. Overhead power or communication lines may be allowed in situations when human safety would be compromised by other methods.
- b. To reduce the likelihood of birds colliding with them, communication towers would be located, to the extent practicable, on existing pads and as close as possible to buildings or other structures and on the east or west side of buildings or other structures, if possible. Support wires associated with communication towers, radio antennas, and other similar facilities would be avoided to the extent practicable. If support wires are necessary, they would be clearly marked along their entire length to improve visibility to low-flying birds. Such markings would be developed through consultation with the USFWS.

- c. Design of other utility infrastructure, such as wind turbines, would be evaluated under a specific development proposal.
- d. The permittee shall comply with current industry-accepted practices for raptor protection on power lines, such as the most recent Avian Power Line Interaction Committee suggested practices.

Use of Aircraft for Permitted Activities

ROP F-1

Objective: Minimize the effects of low-flying aircraft on wildlife, subsistence activities, and local communities.

Requirement/Standard: The lessee shall ensure that aircraft used for permitted activities maintain altitudes according to the following guidelines (Note: This ROP is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objectives of the stipulations and ROPs. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.):

- a. Aircraft shall maintain an altitude of at least 1,500 feet above ground level when within ½ mile of cliffs identified as raptor nesting sites from April 15 through August 15 and an altitude of at least 1,500 feet above ground level when within ½ mile of known gyrfalcon nest sites from March 15 to August 15, unless doing so would endanger human life or violate safe flying practices. Permittees shall obtain information from the BLM necessary to plan flight routes when routes may go near falcon nests.
- b. Aircraft shall maintain an altitude of at least 1,000 feet above ground level (except for takeoffs and landings) over caribou winter ranges from December 1 through May 1, unless doing so would endanger human life or violate safe flying practices. Caribou wintering areas will be defined annually by the authorized officer. The BLM will consult directly with the Alaska Department of Fish and Game in annually defining caribou winter ranges.
- c. Land user shall submit an aircraft use plan as part of an oil and gas exploration or development proposal. The plan shall address strategies to minimize impacts to subsistence hunting and associated activities, including but not limited to the number of flights, type of aircraft, and flight altitudes and routes, and shall also include a plan to monitor flights.
- d. Proposed aircraft use plans should be reviewed by appropriate federal, State, and borough agencies. Consultations with these same agencies will be required if unacceptable disturbance is identified by subsistence users. Adjustments, including possible suspension of all flights, may be required by the authorized officer if resulting disturbance is determined to be unacceptable.
- e. The number of takeoffs and landings to support oil and gas operations with necessary materials and supplies should be limited to the maximum extent possible. During the design of proposed oil and gas facilities, larger landing strips and storage areas should be considered to allow larger aircraft to be employed, resulting in fewer flights to the facility.
- f. Use of aircraft, especially rotary wing aircraft, near known subsistence camps and cabins or during sensitive subsistence hunting periods (spring goose hunting and fall caribou and moose hunting) should be kept to a minimum.
- g. Aircraft used for permitted activities shall maintain an altitude of at least 2,000 feet above ground level (except for takeoffs and landings) over the Teshekpuk Lake Caribou Habitat

Area (Map 2) from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices. Aircraft use (including fixed wing and helicopter) by oil and gas lessees in the Goose Molting Area (Map 2) should be minimized from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices.

- h. Aircraft used for permitted activities shall maintain an altitude of at least 2,000 feet above ground level (except for takeoffs and landings) over the Utukok River Uplands Special Area (Map 2) from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices.
- i. Hazing of wildlife by aircraft is prohibited. Pursuit of running wildlife is hazing. If wildlife begins to run as an aircraft approaches, the aircraft is too close and must break away.
- j. Fixed wing aircraft used as part of a BLM-authorized activity along the coast shall maintain minimum altitude of 2,000 feet when within a ½-mile of walrus haulouts, unless doing so would endanger human life or violate safe flying practices. Helicopters used as part of a BLM-authorized activity along the coast shall maintain minimum altitude of 3,000 feet and a 1-mile buffer from walrus haulouts, unless doing so would endanger human life or violate safe flying practices.
- k. Aircraft used as part of a BLM-authorized activity along the coast and shore fast ice zone shall maintain minimum altitude of 3,000 feet when within 1 mile of all listed marine mammal species, unless doing so would endanger human life or violate safe flying practices.

Oil Field Abandonment

ROP G-1

Objective: Ensure long-term reclamation of land to its previous condition and use.

Requirement/Standard: Prior to final abandonment, land used for oil and gas infrastructure – including but not limited to well pads, production facilities, access roads, and airstrips – shall be reclaimed to ensure eventual restoration of ecosystem function. The leaseholder shall develop and implement an abandonment and reclamation plan approved by the BLM. The plan shall describe short-term stability, visual, hydrological, and productivity objectives and steps to be taken to ensure eventual ecosystem restoration to the land's previous hydrological, vegetative, and habitat condition. The BLM may grant exceptions to satisfy stated environmental or public purposes.

Subsistence Consultation for Permitted Activities

ROP H-1

Objective: Provide opportunities for participation in planning and decision making to prevent unreasonable conflicts between subsistence uses and other activities.

Requirement/Standard: Lessee/permittee shall consult directly with affected communities using the following guidelines:

- a. Before submitting an application to the BLM, the applicant shall consult with directly affected subsistence communities, the North Slope Borough, and the National Petroleum Reserve-Alaska Subsistence Advisory Panel to discuss the siting, timing, and methods of

their proposed operations to help discover local traditional and scientific knowledge, resulting in measures that minimize impacts to subsistence uses. Through this consultation, the applicant shall make every reasonable effort, including such mechanisms as conflict avoidance agreements and mitigating measures, to ensure that proposed activities will not result in unreasonable interference with subsistence activities. In the event that no agreement is reached between the parties, the authorized officer shall consult with the directly involved parties and determine which activities will occur, including the timeframes.

- b. The applicant shall submit documentation of consultation efforts as part of its operations plan. Applicants should submit the proposed plan of operations to the National Petroleum Reserve-Alaska Subsistence Advisory Panel for review and comment. The applicant must allow time for the BLM to conduct formal government-to-government consultation with Native Tribal governments if the proposed action requires it.
- c. A plan shall be developed that shows how the activity, in combination with other activities in the area, will be scheduled and located to prevent unreasonable conflicts with subsistence activities. The plan will also describe the methods used to monitor the effects of the activity on subsistence use. The plan shall be submitted to the BLM as part of the plan of operations. The plan should address the following items:
 - 1. A detailed description of the activity(ies) to take place (including the use of aircraft).
 - 2. A description of how the lessee/permittee will minimize and/or deal with any potential impacts identified by the authorized officer during the consultation process.
 - 3. A detailed description of the monitoring effort to take place, including process, procedures, personnel involved and points of contact both at the work site and in the local community.
 - 4. Communication elements to provide information on how the applicant will keep potentially affected individuals and communities up-to-date on the progress of the activities and locations of possible, short-term conflicts (if any) with subsistence activities. Communication methods could include holding community meetings, open house meetings, workshops, newsletters, radio and television announcements, etc.
 - 5. Procedures necessary to facilitate access by subsistence users to the permittees' area of activity or facilities during the course of conducting subsistence activities.
- d. During development, monitoring plans must be established for new permanent facilities, including pipelines, to assess an appropriate range of potential effects on resources and subsistence as determined on a case-by-case basis given the nature and location of the facilities. The scope, intensity, and duration of such plans will be established in consultation with the authorized officer and NPR-A Subsistence Advisory Panel.
- e. Permittees that propose barging facilities, equipment, supplies, or other materials to NPR-A in support of oil and gas activities in the NPR-A shall notify, confer, and coordinate with the Alaska Eskimo Whaling Commission, the appropriate local community whaling captains' associations, and the North Slope Borough to minimize impacts from the proposed barging on subsistence whaling activities.

- f. Barge operators requiring a BLM permit are required to demonstrate that barging activities will not have unmitigable adverse impacts on the availability of marine mammals to subsistence hunters.
- g. All vessels over 50 ft. in length engaged in operations requiring a BLM permit must have an Automatic Identification System (AIS) transponder system on the vessel.

ROP H-2

Objective: Prevent unreasonable conflicts between subsistence activities and geophysical (seismic) exploration.

Requirement/Standard: In addition to the consultation process described in ROP H-1 for permitted activities, before activity to conduct geophysical (seismic) exploration commences, applicants shall notify the local search and rescue organizations of proposed seismic survey locations for that operational season. For the purpose of this standard, a potentially affected cabin/campsite is defined as any camp or campsite used for subsistence purposes and located within the boundary of the area subject to proposed geophysical exploration and/or within 1 mile of actual or planned travel routes used to supply the seismic operations while it is in operation.

- a. Because of the large land area covered by typical geophysical operations and the potential to impact a large number of subsistence users during the exploration season, the permittee/operator will notify all potentially affected subsistence-use cabin and campsite users.
- b. The official recognized list of subsistence-use cabin and campsite users is the North Slope Borough's most current inventory of cabins and campsites, which have been identified by the subsistence users' names.
- c. A copy of the notification, a map of the proposed exploration area, and the list of potentially affected users shall also be provided to the office of the appropriate Native Tribal government.
- d. The authorized officer will prohibit seismic work within 1 mile of any known subsistence-use cabin or campsite unless an alternate agreement between the cabin/campsite owner/user is reached through the consultation process and presented to the authorized officer. (Regardless of the consultation outcome, the authorized officer will prohibit seismic work within 300 feet of a known subsistence-use cabin or campsite.)
- e. The permittee shall notify the appropriate local search and rescue (e.g., Nuiqsut Search and Rescue, Atkasuk Search and Rescue) of their current operational location within the NPR-A on a weekly basis. This notification should include a map indicating the current extent of surface use and occupation, as well as areas previously used/occupied during the course of the operation in progress. The purpose of this notification is to allow hunters up-to-date information regarding where seismic exploration is occurring, and has occurred, so that they can plan their hunting trips and access routes accordingly. Identification of the appropriate search and rescue offices to be contacted can be obtained from the coordinator of the NPR-A Subsistence Advisory Panel in the BLM's Arctic Field Office.

ROP H-3

Objective: Minimize impacts to sport hunting and trapping species and to subsistence harvest of those animals.

Requirement/Standard: Hunting and trapping by lessee's/permittee's employees, agents, and contractors are prohibited when persons are on "work status." Work status is defined as the period during which an individual is under the control and supervision of an employer. Work status is terminated when the individual's shift ends and he/she returns to a public airport or community (e.g., Fairbanks, Barrow, Nuiqsut, or Deadhorse). Use of lessee/permittee facilities, equipment, or transport for personal access or aid in hunting and trapping is prohibited.

Orientation Programs Associated with Permitted Activities

ROP I-1

Objective: Minimize cultural and resource conflicts.

Requirement/Standard: All personnel involved in oil and gas and related activities shall be provided information concerning applicable stipulations, ROPs, standards, and specific types of environmental, social, traditional, and cultural concerns that relate to the region. The lessee/permittee shall ensure that all personnel involved in permitted activities shall attend an orientation program at least once a year. The proposed orientation program shall be submitted to the authorized officer for review and approval and should:

- a. Provide sufficient detail to notify personnel of applicable stipulations and ROPs as well as inform individuals working on the project of specific types of environmental, social, traditional and cultural concerns that relate to the region.
- b. Address the importance of not disturbing archaeological and biological resources and habitats, including endangered species, fisheries, bird colonies, and marine mammals, and provide guidance on how to avoid disturbance.
- c. Include guidance on the preparation, production, and distribution of information cards on endangered and/or threatened species.
- d. Be designed to increase sensitivity and understanding of personnel to community values, customs, and lifestyles in areas in which personnel will be operating.
- e. Include information concerning avoidance of conflicts with subsistence, commercial fishing activities, and pertinent mitigation.
- f. Include information for aircraft personnel concerning subsistence activities and areas/seasons that are particularly sensitive to disturbance by low-flying aircraft. Of special concern is aircraft use near traditional subsistence cabins and campsites, flights during spring goose hunting and fall caribou and moose hunting seasons, and flights near North Slope communities.
- g. Provide that individual training is transferable from one facility to another except for elements of the training specific to a particular site.
- h. Include on-site records of all personnel who attend the program for so long as the site is active, though not to exceed the 5 most recent years of operations. This record shall include the name and dates(s) of attendance of each attendee.
- i. Include a module discussing bear interaction plans to minimize conflicts between bears and humans.
- j. Provide a copy of 43 CFR 3163 regarding Non-Compliance Assessment and Penalties to on-site personnel.

- k. Include training designed to ensure strict compliance with local and corporate drug and alcohol policies. This training should be offered to the North Slope Borough Health Department for review and comment.
- l. Include training developed to train employees on how to prevent transmission of communicable diseases, including sexually transmitted diseases, to the local communities. This training should be offered to the North Slope Borough Health Department for review and comment.

Endangered Species Act—Section 7 Consultation Process

ROP J.

The lease areas may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or to have some other special status. The BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activities that will contribute to the need to list such a species or their habitat. The BLM may require modifications to or disapprove a proposed activity that is likely to adversely affect a proposed or listed endangered species, threatened species, or critical habitat. The BLM will not approve any activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 USC § 1531 et seq., including completion of any required procedure for conference or consultation.

Summer Vehicle Tundra Access

ROP L-1

Objective: Protect stream banks and water quality; minimize compaction and displacement of soils; minimize the breakage, abrasion, compaction, or displacement of vegetation; protect cultural and paleontological resources; maintain populations of, and adequate habitat for birds, fish, and caribou and other terrestrial mammals; and minimize impacts to subsistence activities.

Requirement/Standard: On a case-by-case basis, BLM may permit low-ground-pressure vehicles to travel off of gravel pads and roads during times other than those identified in ROP C-2a. Permission for such use would only be granted after an applicant has:

- a. Submitted studies satisfactory to the authorized officer of the impacts on soils and vegetation of the specific low-ground-pressure vehicles to be used. These studies should reflect use of such vehicles under conditions similar to those of the route proposed for use and should demonstrate that the proposed use would have no more than minimal impacts to soils and vegetation.
- b. Submitted surveys satisfactory to the authorized officer of subsistence uses of the area as well as of the soils, vegetation, hydrology, wildlife and fish (and their habitats), paleontological and archaeological resources, and other resources as required by the authorized officer.
- c. Designed and/or modified the use proposal to minimize impacts to the authorized officer's satisfaction. Design steps to achieve the objectives and based upon the studies and surveys may include, but not be limited to, timing restrictions (generally it is considered inadvisable to conduct tundra travel prior to August 1 to protect ground-nesting birds), shifting of work

to winter, rerouting, and not proceeding when certain wildlife are present or subsistence activities are occurring. At the discretion of the authorized officer, the plan for summer tundra vehicle access may be included as part of the spill prevention and response contingency plan required by 40 CFR 112 (Oil Pollution Act) and ROP A-4.

General Wildlife and Habitat Protection

ROP M-1

Objective: Minimize disturbance and hindrance of wildlife, or alteration of wildlife movements through the NPR-A.

Requirement/Standard: Chasing wildlife with ground vehicles is prohibited. Particular attention will be given to avoid disturbing caribou.

ROP M-2

Objective: Prevent the introduction, or spread, of non-native, invasive plant species in the NPR-A.

Requirement/Standard: Certify that all equipment and vehicles (intended for use either off or on roads) are weed-free prior to transporting them into the NPR-A. Monitor annually along roads for non-native invasive species, and initiate effective weed control measures upon evidence of their introduction. Prior to operations in the NPR-A, submit a plan for the BLM's approval, detailing the methods for cleaning equipment and vehicles, monitoring for weeds and weed control.

ROP M-3

Objective: Minimize loss of populations of, and habitat for, plant species designated as Sensitive by the BLM in Alaska.

Requirement/Standard: If a development is proposed in an area that provides potential habitat for a BLM Sensitive Plant Species, the development proponent would conduct surveys at appropriate times of the summer season and in appropriate habitats for the Sensitive Plant Species that might occur there. The results of these surveys will be submitted to the BLM with the application for development.

ROP M-4

Objective: Minimize loss of individuals of, and habitat for, mammalian species designated as Sensitive by the BLM in Alaska.

Requirement/Standard: If a development is proposed in an area that provides potential habitat for the Alaska tiny shrew, the development proponent would conduct surveys at appropriate times of the year and in appropriate habitats in an effort to detect the presence of the shrew. The results of these surveys will be submitted to BLM with the application for development.

Appendix B

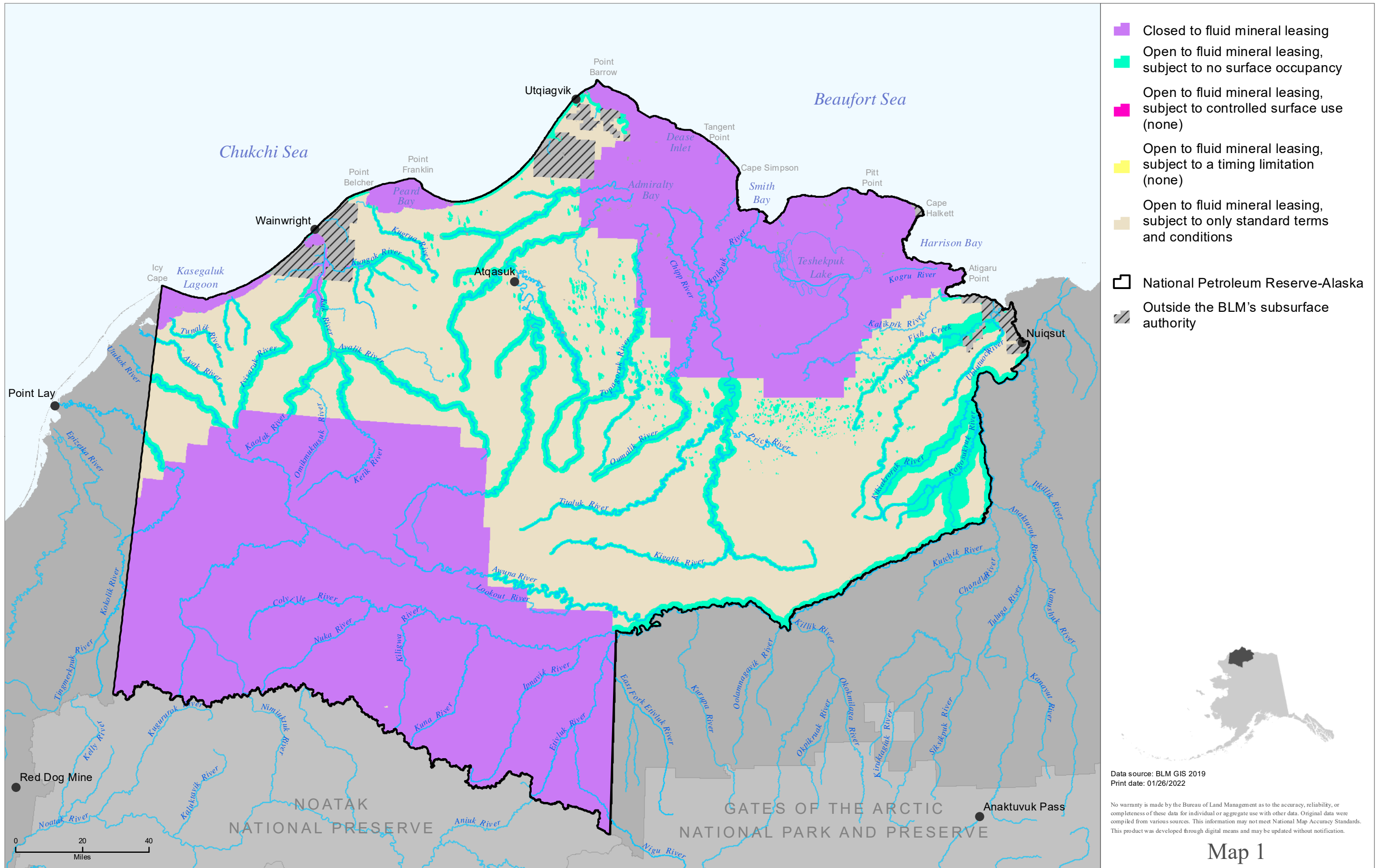
Maps

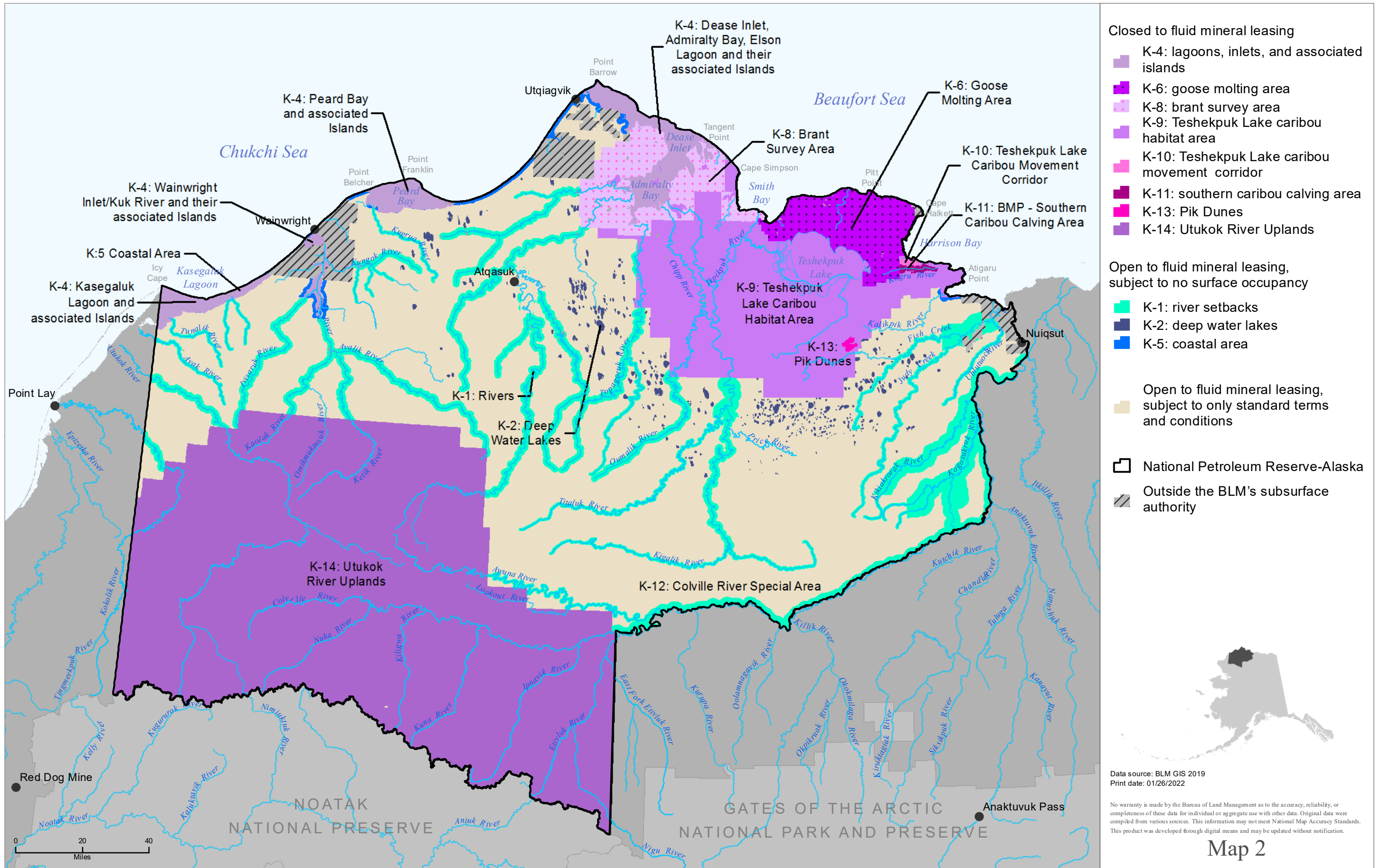
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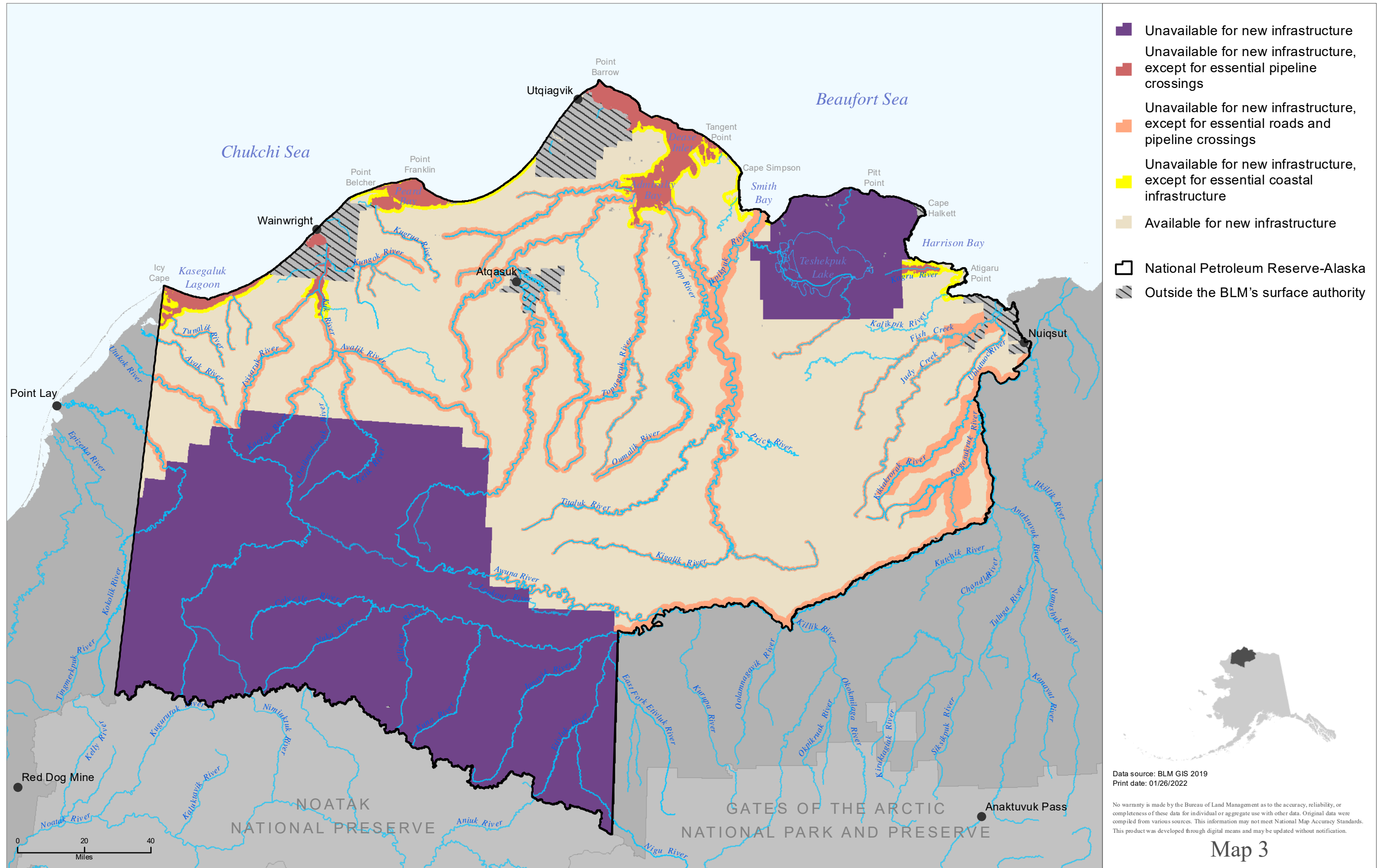
Appendix B. Maps

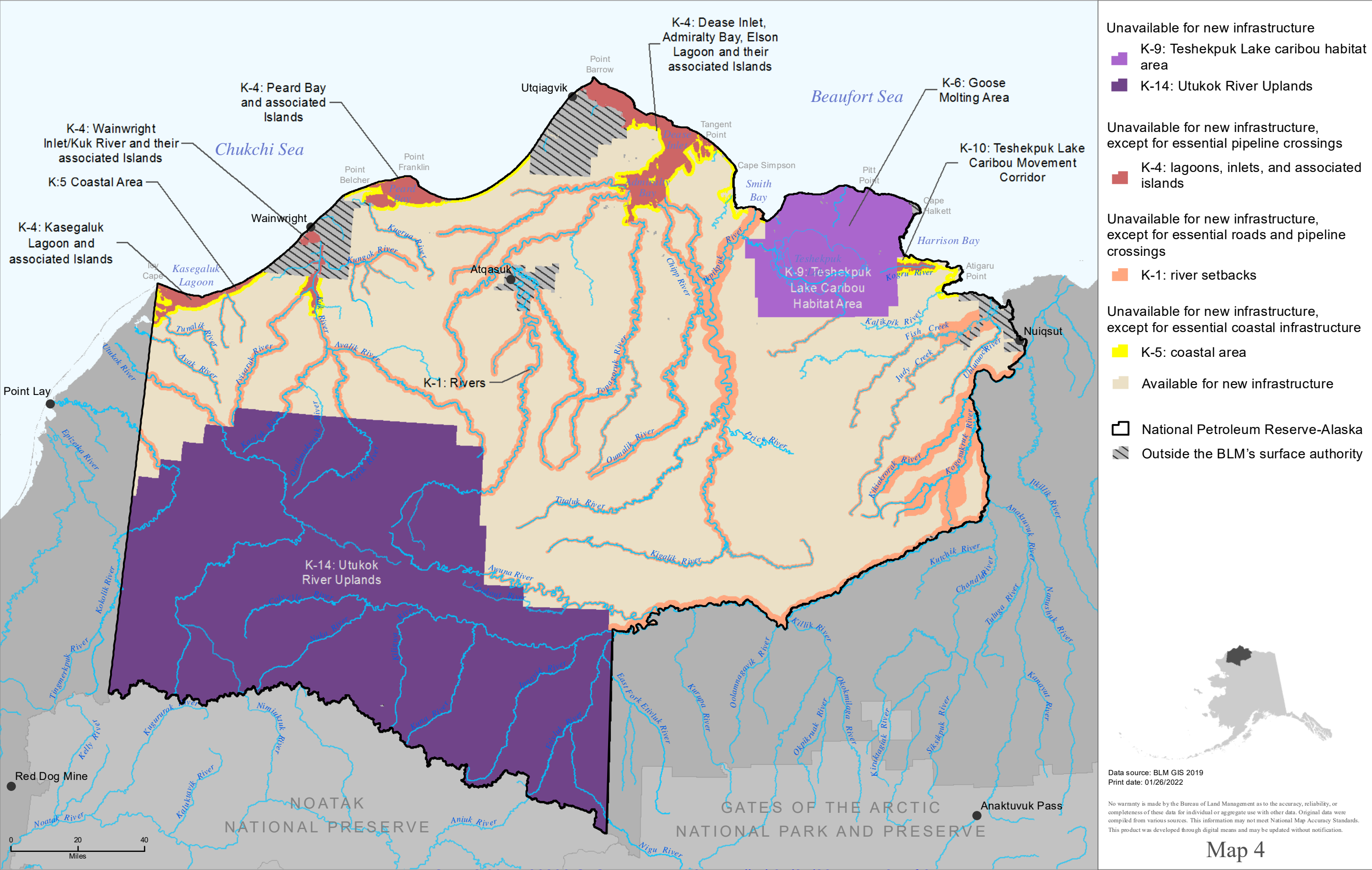
Map 1	Fluid Mineral Leasing
Map 2	Fluid Mineral Leasing, Individual Stipulations
Map 3	New Infrastructure
Map 4	New Infrastructure, Individual Restrictions
Map 5	Special Areas
Map 6	Visual Resource Management

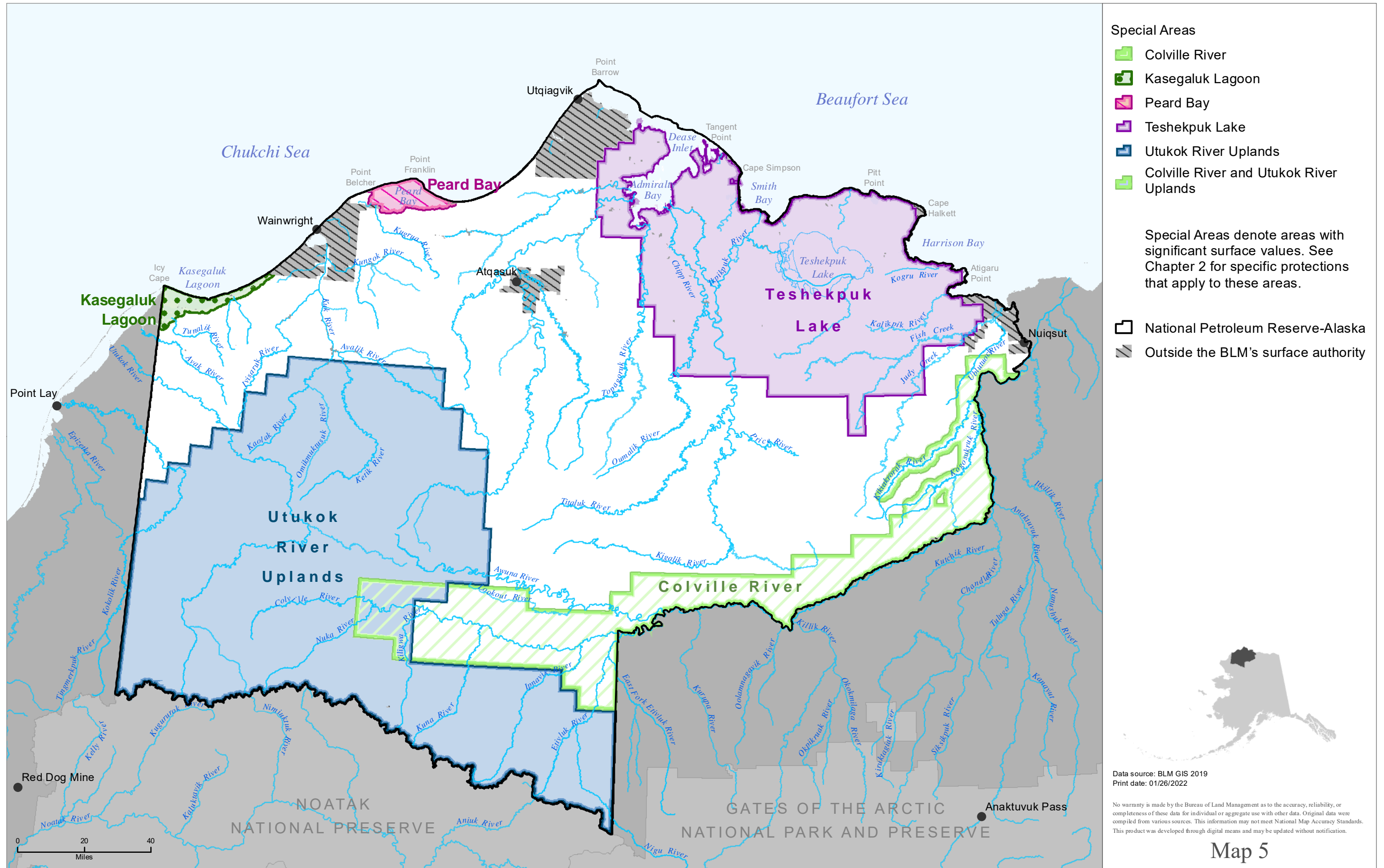
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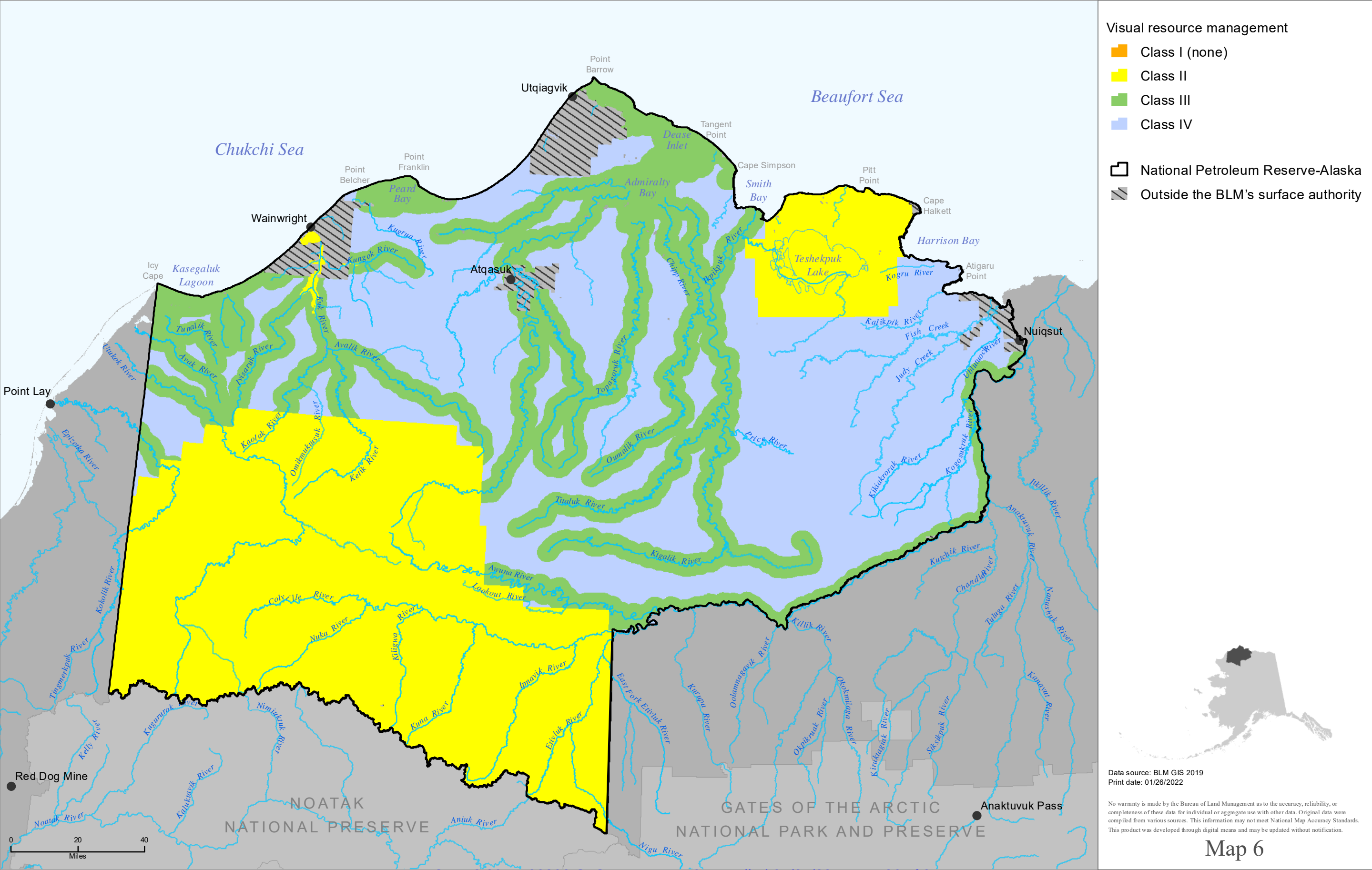












Appendix C

Modifications and Clarifications

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Appendix C. Modifications and Clarifications

The following described clarifications and minor modifications that BLM has made in this Decision to Alternative A presented in the Final IAP/EIS. (Modifications that have been made to current sentence structure, grammatical errors, sub-paragraph letters, and other non-substantive errors are not discussed below.)

C.1 GENERAL

As analyzed in the Final IAP/EIS, Alternative A relied on the term Best Management Practices (BMPs) while all action alternatives use the term required operating procedures (ROPs). In adopting Alternative A under this Decision, the BLM has chosen to replace the term BMP with ROP to maintain consistent terminology between ongoing leasing plans on the North Slope.

Substantive changes were made to the following Required Operating Procedures (ROPs) and lease stipulations.

- K-5: Coastal Area Setbacks – The buffer for marine vessels transiting past an aggregation of walrus using a terrestrial haulout was increased to one mile. Steller’s sea lions were added to the list of marine mammals requiring a one mile buffer by transiting vessels.
- ROP F-4: The 3,000 ft minimum flight altitude for aircraft passing within one mile of seals was extended to all ESA listed marine mammals.

In addition to the above listed substantive changes, the ROPs and lease stipulations were re-numbered to be sequential in the ROD. Below is a complete list of the ROPs and lease stipulation numbers that are different than the Final IAP/EIS:

- K-17: Federal Mineral Estate Under Native Lands from the Final IAP/EIS was renumbered to K-15 in the ROD.
- ROP E-21 from the Final IAP/EIS was renumbered E-20 in the ROD.

C.2 MAPS

All maps in the Final IAP/EIS depicting the area outside the BLM’s subsurface authority erroneously depict two sections (Umiat Meridian, Alaska, T. 14 N, R. 19 W, Sections 29 and 32) northeast of the community of Atqasuk as being outside of the BLM’s subsurface authority. The BLM reserved the subsurface estate for both sections in its Patent 50-2015-0075 to the Atqasuk Corporation and, therefore, both sections are within the subsurface authority of the BLM. All maps in the ROD have remedied this mapping error.